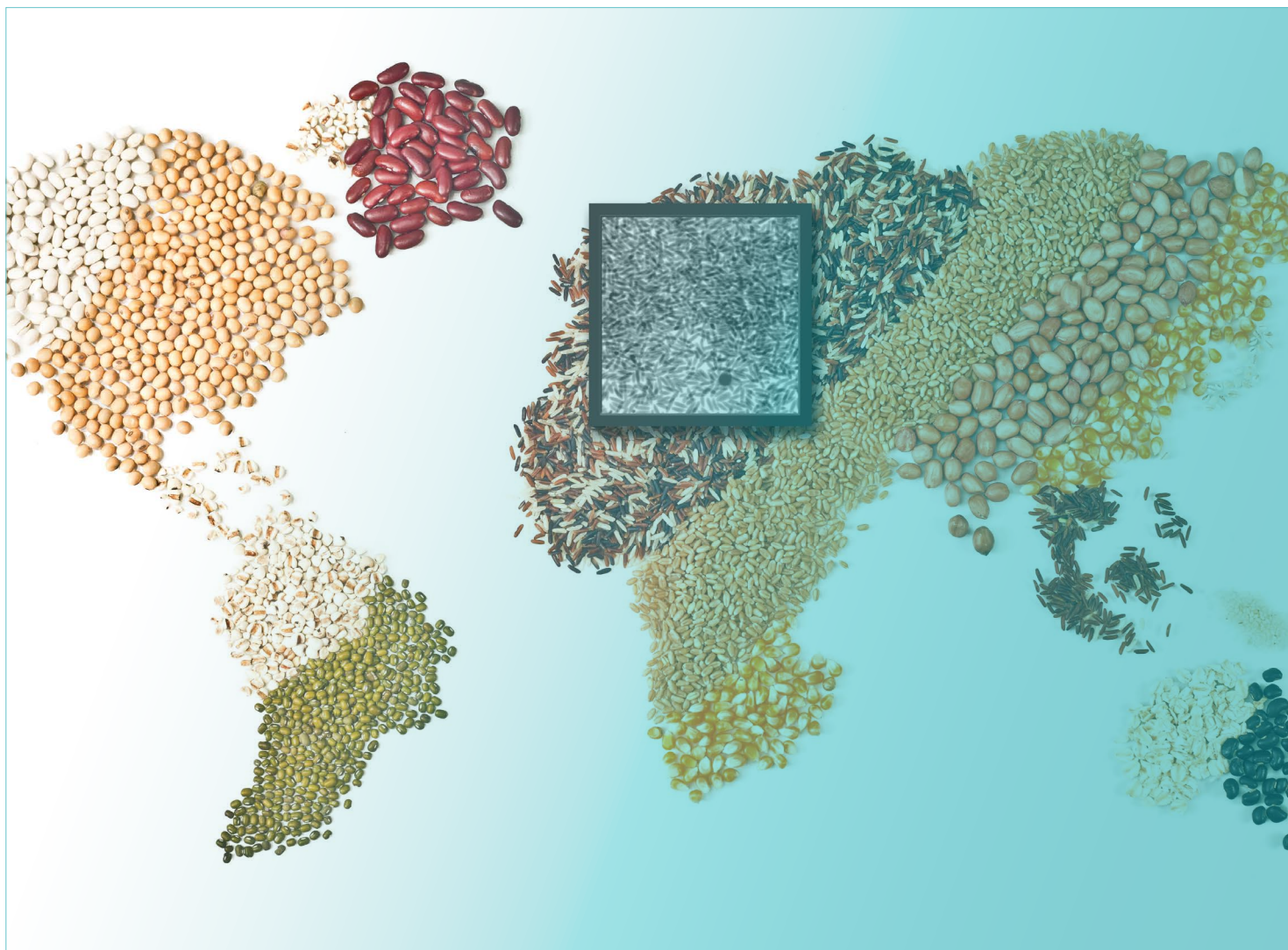


# / X-ray Inspection SC



**Wipotec perfectly** meets the **requirements** of the **global food industry** through its state of the art **inspection solutions**

# / X-ray technology from Wipotec:

## Modular diversity for best possible process and product safety

### Wipotec

#### 4 Advanced X-ray technology

Ensuring product safety and brand protection are our biggest priorities

#### 5 Wipotec

All required expertise under one roof: globally respected, flexible, and innovative

#### 8 The most advanced inspection systems

X-ray technology from Wipotec

#### 9 Modular design

For maximal economy

### Solutions

#### 10 SC-E

High-tech X-ray scanner for professional detection of contaminants

#### 12 SC-Series

Top performance with the greatest flexibility

#### 14 SC-B 30

The most accurate inspection of bulk materials – the safety check for raw goods

#### 16 SC-WD

Reliable product inspection in wet areas



SC-E

**18 SC-S 4000**

Compact and reliable inspection of standing products

**20 SC-S 5020**

Dual View X-ray inspection – glass in glass detection

**22 SC-W**

Twice as safe: X-ray scanner and checkweigher in combination

---

**24 All-In-One**

X-ray inspection, Metal detection, Optical inspection and Checkweighing in one compact unit

**26 Wipotec image processing software**

For maximal product and consumer safety

---

SC 40



# / Advanced X-ray technology from Wipotec: Ensuring product safety and brand protection are our biggest priorities

In the industrial manufacturing of products, quality must be given the highest priority in all production processes. Against the backdrop of utmost concern for customer safety, supplying defective goods can quickly result in fatal consequences. Recall actions are extremely costly and may irreparably damage your image as a reliable producer. Even worse are the health risks passed on to the consumer because defective products were shipped.

## **Wipotec inspection systems – Guarantee of quality**

To ensure the shelves at the retailer do not become a safety risk, manufacturers need advanced and fully automated inspection systems that reliably and continuously guarantee quality without restricting productivity.

Wipotec is among the leading suppliers of comprehensive inspection systems worldwide. Our globally recognised cutting edge technology and our comprehensive product range of ultra-modern, high performance X-ray scanners give you the confidence of knowing you are in the best possible position in terms of quality assurance. Together with you, we create the foundation for sustained customer loyalty.

X-ray scanners from Wipotec support the efficient design of quality assurance systems on the basis of standards like HACCP, BRC, or IFS. These high-tech machines detect foreign bodies made of metal, glass, stone, and plastics of different densities while checking your products for completeness, correct form and fill quantities.

## Portfolio Overview

Series	X-ray inspection	Weighing	Metal detection	Option	Application
<b>SC-E</b>	Top Down	–	–	–	–
<b>SC</b>	Top Down	–	–	Vision	Bulk
<b>SC-WD</b>	Top Down	–	–	Vision	Bulk
<b>SC-W</b>	Top Down	☑	☑	Vision	All-In-One
<b>SC-S</b>	Side View	–	–	–	Single View / Dual View





Wipotec Headquarters

# / **Combined expertise under one roof**

## Cutting-edge technology

## Made in Germany

Wipotec is a sales and service company for dynamic, high-precision weighing and inspection solutions. All machine solutions are developed and manufactured at our headquarters in Kaiserslautern, and we have been setting global standards in the production lines of leading manufacturers for more than 30 years. Throughout the world, customers in the pharmaceutical, food and chemical industries and in the mail and logistics sectors highly appreciate the solutions provided by Wipotec.

### **Excellent solutions for your application**

Wipotec stands for sophisticated high-tech systems with maximum ease of use. The impressive product portfolio provides solutions for nearly all customer applications. If necessary, we take special requirements and conditions into account in supplying customized equipment.



### **Extraordinary manufacturing depth, all side by side**

Wipotec contributes great importance to the in-house development of all necessary technologies as well as the in-house manufacturing of all core components. Consequently, we develop a depth of manufacturing that differentiates us from other vendors and makes us largely independent of suppliers, while forming the basis for our delivery reliability.

At Wipotec, the entire value chain from basic research, to planning, design, and manufacture to sales and service is all under one roof. The benefit of short channels of communication is the guarantee of maximum flexibility in the implementation of every individual product configuration. No matter how unusual your application may be, we will show you a possible solution that is sure to convince you.

That's what makes the difference.



*A company  
must contribute to  
the well-being  
and advancement  
of society –  
not just  
short term  
but long term.*

**Theo Düppre**  
Founder and CEO Wipotec Group





# / Globally respected, independent, flexible, and innovative: That is Wipotec

- Globally respected partner in industry for more than 30 years
- Worldwide presence thanks to numerous subsidiaries and partners
- Founder managed company
- Company with high innovation power through large R&D effort, incl. basic research
- All expertise combined under one roof
- In-house production of all key components
- Broad product range for almost every application
- Broad experience in implementing customer-specific inspection systems
- Use of high precision Wipotec weighing systems for optimum product quality
- Member of the European Hygienic Engineering & Design Group (EHEDG)
- Outstanding service capabilities

## Come and visit us!

Interested in the high-tech solutions from Wipotec? Perhaps you would like to visit our ultra-modern plant. Our prominent market position is no accident, but rather the logical consequence of the creative and competent efforts made by our staff on behalf of our customers. Come and see for yourself. Just schedule an appointment for a tour with us!

### Make an appointment:

✉ [info@wipotec.com](mailto:info@wipotec.com)

# / Powerful X-ray technology from Wipotec

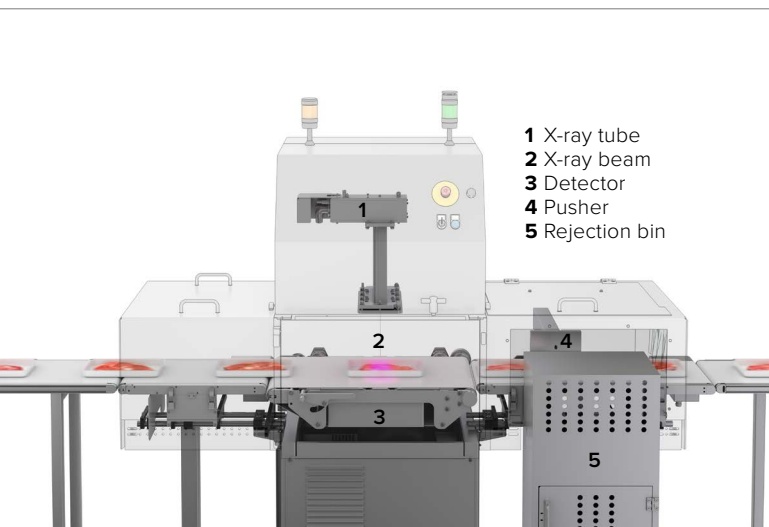
The prerequisite of a successful detection of foreign bodies are X-ray images of the highest quality. It begins with the selection of the optimal X-ray source in combination with the best sensors and high performance image processors running the software. The modular system of Wipotec X-ray technology encompasses air-cooled X-ray units as well as water-cooled metal ceramic tubes with beryllium windows. Diode array, camera detectors with HD-TDI technology (VioX) and cameras with DFXr technology serve as sensors. Innovative, AI-based software algorithms ensure maximum improvement in the automatic teach-in of products.

The adjustable high voltage generator drives the X-ray tube using a collimator. The collimator sends a concentrated beam of radiation to the high performance sensor. The product is then to be inspected as it is positioned on the integrated belt conveyor between the X-ray tube and the sensor where it is then x-rayed.

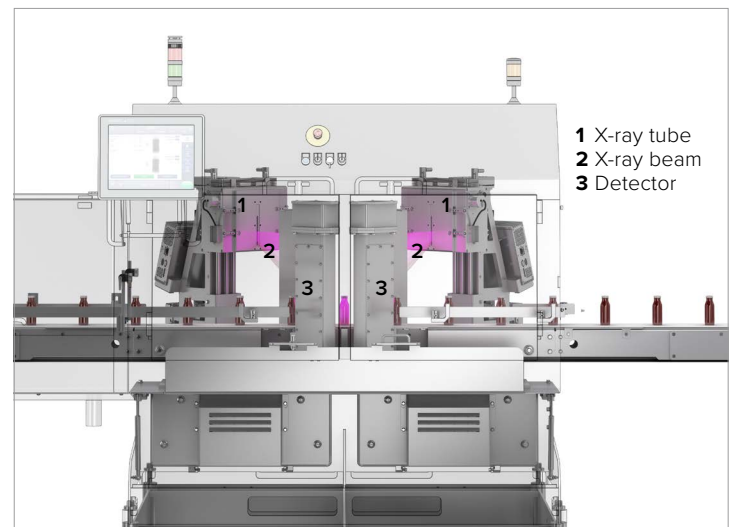
The resulting high resolution X-ray images correspond to the specific density profiles of the controlled products. Foreign bodies within the product are then detected on the basis of their higher specific densities.

The X-ray images are displayed on the 15" touch-screen control panel. Simultaneously, by means of in-house developed image processing software, they are checked against a number of possible defects like impurities, product deformation, fill level deviation, and incomplete or broken products.

Defective products are removed from the production flow with the aid of a variety of alternative mechanisms. The ejection crosscheck control (optional) reliably monitors this process. In the interest of full traceability, the images of the ejected products are archived with a date and time stamp in the image data memory.



Top Down X-ray beam



Side View X-ray beams



# / Modular design

## for tailor-made solutions

Thanks to their modularity, the X-ray scanners of the SC-series are, in a single word, economical. Looking at each individual customer application, Wipotec builds optimally customized machines in a hygienic design that provide sustained support to customers in their pursuit of maximal productivity and product security.

That is the reason for so many different variants regarding X-ray technology, conveying technology, and accessories. For our customers, that means the greatest possible flexibility in the product configuration. The initial basis for the perfect inspection system is always a space saving core segment, easy to integrate in every line that can be supplemented by those components that are most practical for use in your individual environment.

It is not necessary to position the products with the required distances between them in advance. The modular system of Wipotec X-ray scanners is the only

one on the market that automatically sets the inspection product spacing itself. This advantage significantly reduces your investment costs. In many cases, it is what makes the installation of the X-ray technology possible.

### **The new Advanced Modularity, finally also available on the sensor technology level:**

The various sensor technologies are no longer limited to just one model, as was previously the case and common practice in the market. All available sensors of Wipotec can be installed and used in the core segment of the corresponding scanner of the SC series. This gives the SC series core segments unprecedented flexibility in use and ensures maximum sustainability.

The use of X-ray inspection in combination with checkweighers, vision as well as metal detectors leads to the Wipotec "All-In-One" system in the highest expansion stage (see page 24).

## Sensor Technologies

Series	VioX Cameras	Diode Detector	DFXr Cameras	Vision Cameras
SC-E 3000 SC-E 4000	–	Standard	–	–
SC 20	–	Standard	Optional	Optional
SC 30 SC 40 SC 50 SC 60	Optional	Standard	Optional	Optional
SC-WD 40 SC-WD 60	Optional	Standard	Optional	Optional
SC-W 3000 SC-W 4000	Standard	Optional	Optional	Optional
SC-S 4000 SC-S 5020	–	Standard	–	–

# / High-tech x-ray scanner for professional detection of contaminants

The X-ray scanners of the SC-E family are the perfect entry to the world of ultra-modern X-ray inspection systems and the associated high quality product line of Wipotec. Designed and developed to meet the most stringent requirements of foreign body detection, with optional comprehensive software packages, the scanners become excellent all-rounder that reliably perform, completeness, fill level and form check, as well as mass determination. Together with the intelligent software tool (optional) for hiding packaging clips, the SC-E proves to be an exemplary inspection system.

Compact in their construction, the scanners of the SC-E family include a Diode Array Detector with a 0.4 mm resolution (0.8 mm by request), even in the basic version. The machines are very easy to integrate in any existing production line. All of the X-ray scanners from Wipotec have the same familiar and convenient user interface found in the checkweigher line.

The system is controlled from a 15" color TFT display with touchscreen panel that always shows the current X-ray image. Designed for protection class IP65 with full stainless steel construction, the system features a balcony design and sloped surfaces that, together with the C-shaped product area, enable thorough cleaning quickly and easily. All scanners meet the most stringent standards of hygiene.

The SC-E product series is more than a good investment for all users who are looking for highly professional foreign body detection. It represents a well-engineered, technical and economical solution at a highly competitive price.



## Main Features

- Compact design
- Diode Array Detector with 0.4 mm resolution (0.8 mm by request)
- Comprehensive software package (optional)
- Numerous sorting systems (optional)
- For all primary and secondary packaging up to medium size

## Your Benefits

- Reliable all-rounder for optimal productivity
- Compact design for easy integration

Technical Data	SC-E
<b>X-ray type</b>	X-ray unit
<b>X-ray output</b>	up to 200 W (infinitely variable)
<b>X-ray sensor</b>	Diode array technology, with 0.4 mm resolution (0.8 mm by request)
<b>Scanning width</b>	300 and 400 mm
<b>Scanning speeds</b>	50 m/min (optional up to 90 m/min)
<b>Product storage</b>	100 products, expandable
<b>Display</b>	15" color TFT with touchscreen
<b>Working height</b>	650–750 / 750–850 / 850–950 / 950–1,050 mm <sup>1)</sup>
<b>Scanner belt lengths</b>	800 / 1,500 / 1,800 mm
<b>Hygienic design</b>	Complete stainless steel model (1.4301); easy to clean product area (C-shaped);
<b>Ambient conditions</b>	+5 °C to +35 °C (optional 40 °C), relative humidity 20% – 80% (non-condensing)
<b>Protection class</b>	IP65 (except ventilators on cabinet)
<b>Power supply</b>	230 VAC; 50/60 Hz; 2.2 kVA Connection with separate, 10 A fuse power line

<sup>1)</sup> Other heights available by request



# / Top performance with the greatest flexibility

The globally successful SC-Series meets the highest standards of modern quality management. Nothing is left to chance in terms of process safety and hygienic design. The high-performance detectors with diode array, VioX or DFXr sensor technology, provide the perfect basis for the image processing software developed in-house with their high-resolution X-ray images. The minimal faulty rejection rate combines with the maximal detection accuracy to provide the greatest possible safety.

Thanks to the new Advanced Modularity for the SC-Series, the core segments can be equipped with all available sensor technologies. This includes diode arrays, VioX or DFXr.<sup>1</sup> Each model is equipped with a comprehensive software package.

The scope of performance of this network-enabled scanner includes foreign body detection, quantity, shape, completeness, and fill level control. The scanning process is continuously documented and is available for single and multi-track systems.

All of the X-ray scanners from Wipotec have the same familiar and convenient user interface found in the checkweigher line. The system is controlled from a 15" color TFT display with touchscreen panel that always shows the current X-ray image. Designed for protection class IP65 with full stainless steel construction, the system features a balcony design and sloped surfaces that, together with the C-shaped and weldless product chamber, enable thorough cleaning quickly and easily. All scanners meet the most stringent standards of hygiene.



## Main Features

- Advanced Modularity in design and sensor technology
- C-shaped product chamber
- Compact design
- Integrated conveyor systems
- Balcony design
- High performance sensors (diode array, VioX, DFXr technology)<sup>1</sup>

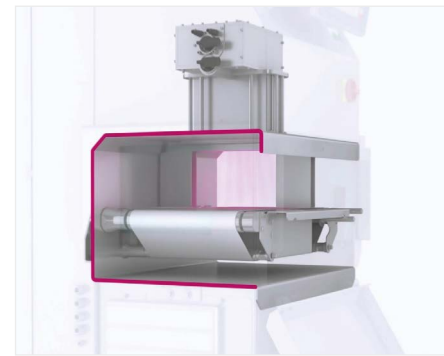
## Your Benefits

- The broadest inspection for maximum safety
- Compact design for easy integration

<sup>1</sup> VioX technology is not available for SC 20



Technical Data	SC
<b>X-ray type</b>	Metal-ceramic tube with integrated water cooling system or X-ray unit
<b>X-ray output</b>	up to 600 W, depending on type (infinitely variable)
<b>X-ray sensor</b>	Diode array technology from 0.4 mm resolution; long-life VioX camera technology from 102 µm resolution, vision cameras or DFXr
<b>Scanning width</b>	from 200 to 600 mm <sup>1)</sup>
<b>Scanning speeds</b>	up to 120 m/min
<b>Product storage</b>	100 products, expandable
<b>Display</b>	15" color TFT with touchscreen (19" optional)
<b>Working height</b>	750–850 / 800–900 / 850–950 mm <sup>2)</sup>
<b>Hygienic design</b>	Complete stainless steel model (1.4301), easy to clean product area, built-in drive technology
<b>Ambient conditions</b>	+5 °C to +40 °C, depending on X-ray type, relative humidity 20% – 80%
<b>Protection class</b>	IP65
<b>Power supply</b>	230 VAC; 50 Hz; 2.5 kVA (altern. SC 50/60: 400 VAC; 50 Hz; 3.5 kVA)Connection with separate, 16 A fuse power line (SC 60: 10 A)



C-shape product chamber for the highest hygienic requirements

<sup>1)</sup> Wider models available by request

<sup>2)</sup> Other working heights by request



# / Most accurate inspection of bulk materials: the safety check for raw goods

The optimal technical support for starting your production process with a quality control check of the raw goods – the SC-B 30 model. The scanner provides a very high detection sensitivity that checks loose materials of any kind for the presence of foreign objects. You can be sure that if there is an impurity in the product, it will not be allowed to enter your production process.

The SC-B 30 has the appropriate ejection system to guarantee reliable detection of contaminants with only minimal product loss. The scanner is available in different scanner band widths to efficiently support your individual long-term line requirements. Meet your customers' expectations regarding product quality with the help of SC-B 30 that guarantees the highest detection sensitivities in terms of foreign object identification and prevention.

All of the X-ray scanners from Wipotec have the same familiar and convenient user interface found in the checkweigher line. The system is controlled from a 15" color TFT display with touchscreen panel that always shows the current X-ray image.

Designed for protection class IP65 with full stainless steel construction, the system features a balcony design and sloped surfaces that, together with C-shaped product area, enable thorough cleaning quickly and easily. All scanners meet the most stringent standards of hygiene.



## Main Features

- Advanced Modularity in design
- Compact design
- Integrated conveyor systems
- Balcony design
- Extensive range of ejection systems

## Your Benefits

- Reliable check of incoming goods for highest product quality
- Greatest flexibility for optimal line integration

Technical Data	SC-B 30
<b>X-ray type</b>	X-ray unit
<b>X-ray output</b>	max. 200 W
<b>X-ray sensor</b>	Diode array technology with 0.4 mm resolution
<b>Scanning width</b>	300 mm <sup>1)</sup>
<b>Scanning speeds</b>	max. 70 m/min
<b>Product storage</b>	100 products, expandable
<b>Display</b>	15" color TFT with touchscreen
<b>Working height</b>	670–730 / 750–850 / 850–950 / 950–1.050 mm <sup>2)</sup>
<b>Hygienic design</b>	Completely constructed in stainless steel product area easy to clean (C-shape) IMOT servo motor technology on the conveyor belt
<b>Ambient conditions</b>	+5 to +35 °C (optional +5 to +40 °C), relative humidity 20% – 80%
<b>Protection class</b>	IP65 (except fans on the control cabinet door and on the core segment)
<b>Power supply</b>	230 VAC; 50/60 Hz; 2,4 kVA 150 VAC optional

<sup>1)</sup> Breitere Modelle auf Anfrage

<sup>2)</sup> Andere Arbeitshöhen auf Anfrage



Modular VA flap ejectors



Modular VA air blast nozzles

# / Reliable product inspection in wet areas

The SC-WD product series meets the highest requirements for process reliability and hygienic design. Thanks to its IP69K protection class, it is perfectly suited for wet environments and extremely demanding cleaning conditions. The stainless steel housing, the C-shaped product chamber and the bevelled surfaces meet even the most stringent hygienic requirements.

Tool-less assembly and disassembly of the belt is simple, allowing quick and thorough cleanings and ensuring short cleaning cycles. Optional special surface treatment can be selected to ensure maximum hygiene. The X-ray scanner as well as options such as the integrated water-water cooling unit or the connection to an external cooling system meet the IP69K protection class.

Like all machines in the SC-Series, the SC-WD series also has an optional VioX camera detector which, in conjunction with the metal-ceramic tube, produces X-ray images with extremely high resolution. These form the perfect basis for the image processing software developed in-house. Numerous software tools ensure reliable performance of foreign body detection, quantity, shape and filling checks, as well as other inspection tasks (see pp. 26–27).

All Wipotec X-ray scanners are equipped with an easy-to-operate user interface, familiar from the checkweigher division. The system is controlled via a large color TFT with touchscreen, which displays the current X-ray images at all times.

## Main Features

- Advanced Modularity in design and sensor technology
- C-shaped product space, balcony architecture
- Protection class IP69K
- Compact design
- Highest detection sensitivity

## Your Benefits

- Easy and thorough cleaning
- Fulfills highest hygiene requirements
- Maximum flexibility





Technical Data	SC-WD
<b>X-ray type</b>	Metal-ceramic tube with integrated water cooling system or X-ray unit
<b>X-ray output</b>	up to 600 W, depending on type (infinitely variable)
<b>X-ray sensor</b>	Diode array technology from 0.4 mm resolution; long-life VioX camera technology from 102 µm resolution, vision cameras or DFXr
<b>Scanning width</b>	600 mm <sup>1)</sup>
<b>Scanning speeds</b>	up to 120 m/min
<b>Product storage</b>	100 products, expandable
<b>Display</b>	15" color TFT with touchscreen
<b>Working height</b>	750–850 / 800–900 / 850–950 mm <sup>2)</sup>
<b>Hygienic design</b>	Complete stainless steel model (1.4301); easy to clean product area, built-in drive technology
<b>Ambient conditions</b>	±0 °C to +40 °C
<b>Protection class</b>	IP69K
<b>Power supply</b>	400 VAC; 50–60 Hz; 3,5 kVA Connection with separate, 16 A fuse power line

<sup>1)</sup> Wider models available by request

<sup>2)</sup> Other working heights by request



Covered operation panel for highest hygienic requirements

# / Compact and reliable inspection of standing products

If you have to check standing products for impurities by means of X-rays and ensure the correct fill levels, then the models of the SC-S series are the perfect choice.

These models follow a component design that enables an easy, space-saving integration with any existing production line. A height-adjustable X-ray source provides excellent detection of the bottom area, with automatic adaptation to different product heights. The sideview scanner reliably checks cans, bottles, composite packaging, paper, or plastic containers. Either a belt or a chain conveyor can pass through the scanner's housing.

All of the X-ray scanners from Wipotec have the same familiar and convenient user interface found in the checkweigher line. The system is controlled from a 15" color TFT display with touchscreen panel that always shows the current X-ray image. Designed for protection class IP65 with full stainless steel construction, the system features a balcony design and sloped surfaces that, together with C-shaped product area, enable thorough cleaning quickly and easily. All scanners meet the most stringent standards of hygiene.



## Main Features

- Modular design
- Checks standing products like cans, bottles, PVC containers
- Compact design
- Integrated conveyor systems

## Your Benefits

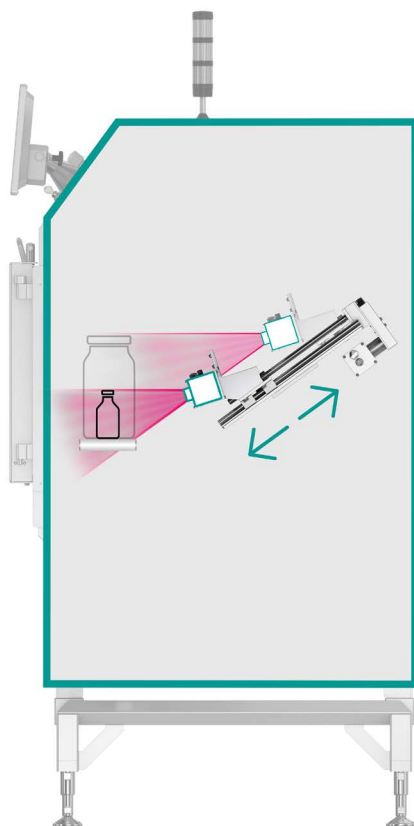
- The broadest inspection for maximum productivity
- Compact design for easy integration

Technical Data	SC-S 4000
<b>X-ray type</b>	Metal-ceramic tube with integrated water cooling system or X-ray unit
<b>X-ray output</b>	up to 600 W, depending on type (infinitely variable)
<b>X-ray sensor</b>	Diode array technology from 0.4 mm resolution or long-life VioX camera technology from 102 µm resolution
<b>Scanning width</b>	400 mm <sup>1)</sup>
<b>Scanning speeds</b>	up to 120 m/min
<b>Product storage</b>	100 products, expandable
<b>Display</b>	15" color TFT with touchscreen (19" optional)
<b>Working height</b>	750–850 / 800–900 / 850–950 mm <sup>2)</sup>
<b>Hygienic design</b>	Complete stainless steel model (1.4301), easy to clean product area, built-in drive technology
<b>Ambient conditions</b>	+5 °C to +40 °C, relative humidity 20% – 80%
<b>Protection class</b>	IP65, IP69K <sup>3)</sup>
<b>Power supply</b>	230 VAC; 50 Hz; 2.5 kVA Connection with separate, 16 A fuse power line

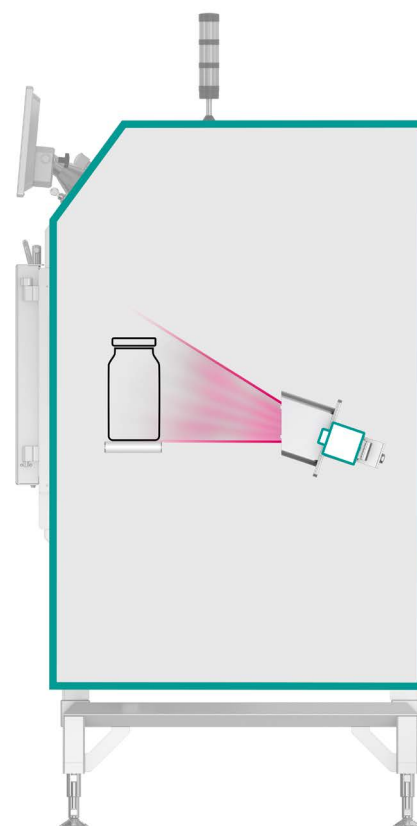
<sup>1)</sup> Wider models available by request

<sup>2)</sup> Other working heights by request

<sup>3)</sup> By request



Height-adjustable X-ray source with beam path through the floor



Beam path parallel to the ground

# / Dual View X-ray Inspection

## Glass in Glass detection

The Dual View version of the SC-S series enables a full inspection of products packed in cans and jars in various orientations. Due to the special arrangement of two X-ray detectors, the entire product area inside the containers will be inspected for foreign bodies. The high flexibility in the arrangement of the X-ray sources and the detectors optimizes the foreign body inspection to a maximum, compared to conventional dual beam systems. The high-performance image processing software that allows the segmentation of the product images into multiple inspection areas is of particular importance.

In addition, various application-specific rejection systems of the modular Wipotec portfolio can be combined with the machine. The compact and hygienic design of this inspection system fulfills the special requirements of the food industry. The X-ray system reliably achieves outstanding inspection results at high throughputs of up to 1,200 pieces/min – with the lowest false rejection rates.

### Main Features

- Modular design
- Full inspection of upright containers in various heights and angles
- Segmentation of the product image into several inspection areas
- Easy cleaning due to V2A hygienic design

### Your Benefits

- The broadest inspection for maximum productivity
- Highest flexibility due to adjustable X-ray sources

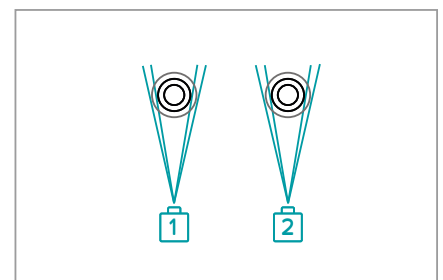
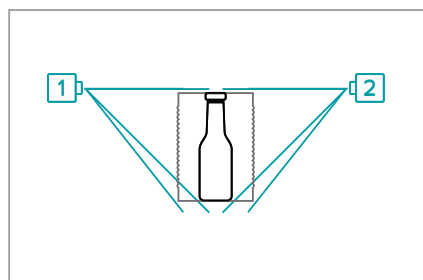
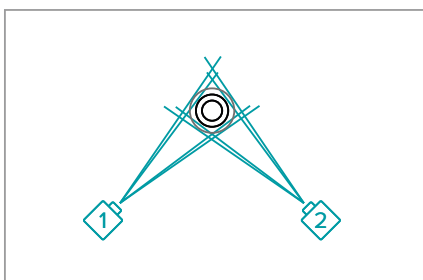
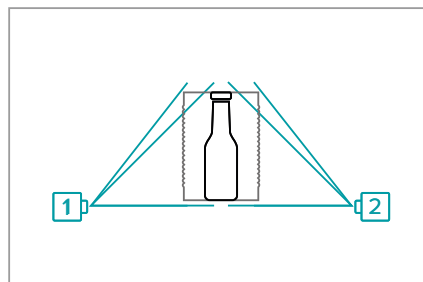
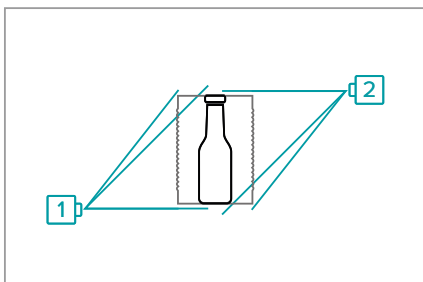




Technical Data	SC-S 5020
X-ray type	2 × X-ray unit
X-ray output	2 × max. 500 W
X-ray sensor	Diode array technology from 0.4 mm resolution
Scanning width	513 mm
Scanning speeds	max. 120 m/min
Product storage	100 products, expandable
Display	15" color TFT with touchscreen (19" optional)
Working height	750–900 / 850–1,000 / 950–1,100 mm <sup>1)</sup>
Hygienic design	Constructed in stainless steel (1.4301); IMOT servo drive mounted directly on conveyor
Ambient conditions	+5 °C up to +40 °C
Protection class	IP65 (except air inlet air-water cooling unit)
Power supply	max. 7 mA each

<sup>1)</sup> Other working heights on request

### Five possible placements of X-ray detectors



# / Checkweigher and X-ray inspection as a space saving integrated system

The SC-W series is a pioneering combination of innovative X-ray technology and the proven checkweigher technology from Wipotec. The products in the accepted goods stream are checked not only for impurities, but also undergo a high-precision weight control check. Units with an incorrect weight are ejected into a separate container.

Both the single and the dual-track model are very successful – either with or without the curtain for radiation protection. The variant without protective curtain provides high throughput rates of up to 300 pieces per minute per track, which is even possible for very light-weight product units. The tool-free exchange of all conveyor belts and the easy to handle housing make it really simple to clean the system. The product chamber is separated from all of the drive system components.

All of the X-ray scanners from Wipotec have the same familiar and convenient user interface found in the checkweigher line. The system is controlled from a 15" color TFT display with touchscreen panel that always shows the current X-ray image and product weight.

Designed for protection class IP65 with full stainless steel construction, the system features a balcony design and sloped surfaces that, together with C-shaped product area, enable thorough cleaning, quickly and easily. All scanners meet the most stringent standards of hygiene.



## Main Features

- X-ray scanner and checkweigher in one unit
- Advanced Modularity in design
- Available as single or dual-track system

## Your Benefits

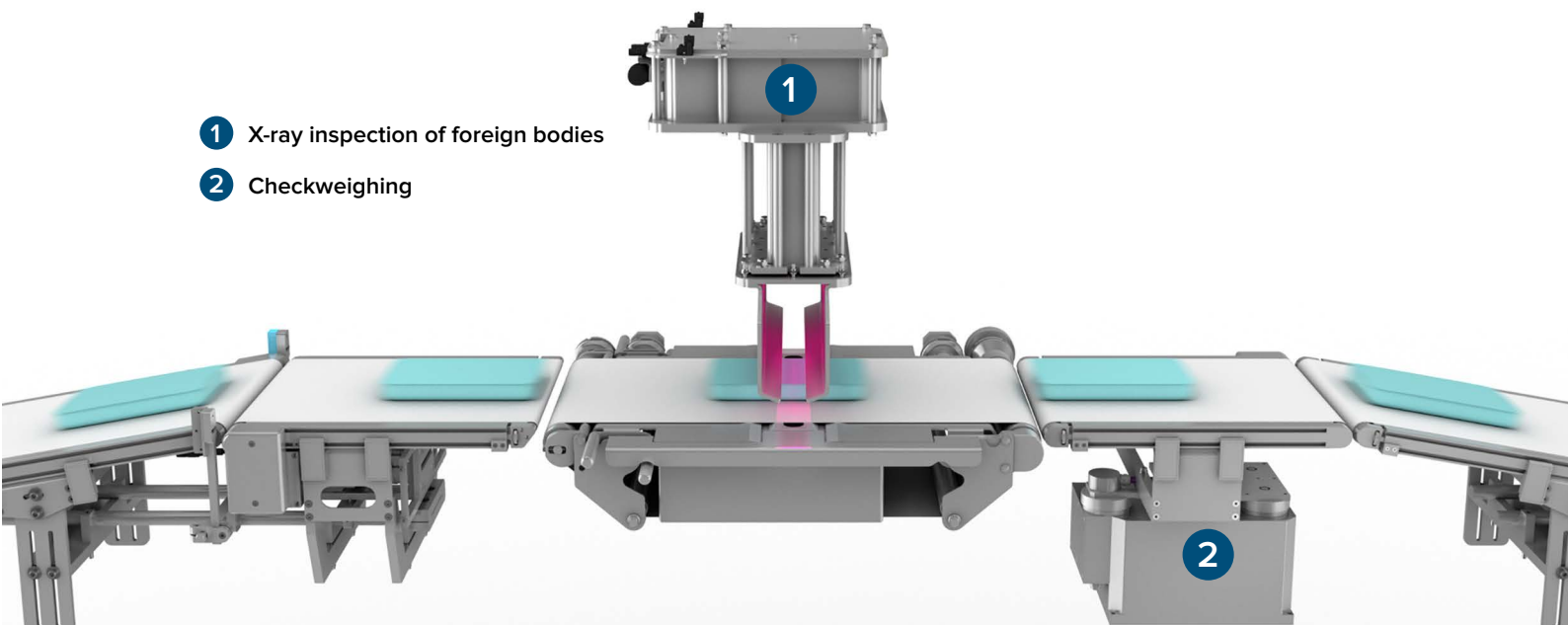
- X-ray scanner and checkweigher for maximum product safety
- Easy to operate central user interface

Technical Data	SC-W		
<b>X-ray type</b>	Metal-ceramic tube with integrated water cooling system or X-ray unit		
<b>X-ray output</b>	up to 600 W, depending on type (infinitely variable)		
<b>X-ray sensor</b>	Diode array technology from 0.4 mm resolution; long-life VioX camera technology from 102 µm resolution, vision cameras or DFXr		
<b>Scanning width</b>	from 300 to 600 mm <sup>1)</sup>		
<b>Scanning speeds</b>	up to 120 m/min with up to 300 products per track		
<b>Product storage</b>	100 products, expandable		
<b>Display</b>	15" color TFT with touchscreen (19" optional)		
<b>Working height</b>	750–850 / 800–900 / 850–950 mm <sup>2)</sup>		
<b>Hygienic design</b>	Complete stainless steel model (1.4301), easy to clean product area; built-in drive technology		
<b>Ambient conditions</b>	+5 °C to +40 °C, relative humidity 20% – 80%		
<b>Protection class</b>	IP65		
<b>Power supply</b>	230 VAC; 50 Hz; 2.5 kVA Connection with separate, 16 A fuse power line		
<b>Weighing technology</b>	Gross weight range	Max. preload	Min. calibration value
<b>Single track</b>	750–7,500 g	4,000–15,000 g	0.1 g
<b>Dual track</b>	750–7,500 g	4,000–15,000 g	0.1 g
<b>Max. output<sup>3)</sup></b>	300 ppm per track		
<b>EU-type examination certificate</b>	DE-18-MI006-PTB001		
<b>Standard deviation (1s)<sup>3)</sup></b>	> 50 mg		

<sup>1)</sup> Wider models available by request

<sup>2)</sup> Other working heights by request

<sup>3)</sup> Dependent on product form, product behaviour, transport speed, and local conditions



**1** X-ray inspection of foreign bodies

**2** Checkweighing

# / X-ray inspection, Metal detection, Optical inspection and Checkweighing in one compact unit

All-In-One means 4 control systems in one inspection center. And all controlled by one HMI. With the integrated metal and X-ray inspection system, reliable foreign body detection is guaranteed. In addition, the integrated optical inspection equipment ensures an accurate and uniform appearance of your products. The integrated checkweigher determines the individual weight of each product, also in accordance with the MID Directive. All inspection units are modular and space-saving combined and integrated in a compact design.

All functions are controlled with the well-known user interface from the Wipotec portfolio. Easy verification of the corresponding packaging material (films, lids, etc.) is possible with the AIO system. All quality relevant information such as batch numbers, nutritional information, expiration dates and much more, are checked for correctness and flawless printing. The correct positioning and legibility of all labels and markings are also checked.



Technical Data	All-In-One
<b>X-ray type</b>	Metal-ceramic tube with integrated water cooling system or X-ray unit
<b>X-ray output</b>	up to 600 W, depending on type (infinitely variable)
<b>X-ray sensor</b>	Diode array technology from 0.4 mm resolution; long-life VioX camera technology from 102 µm resolution, vision cameras or DFXr
<b>Scanning width</b>	from 300 to 600 mm <sup>1)</sup>
<b>Scanning speeds</b>	up to 70 m/min at 150 ppm (with inspection on both sides)
<b>Product storage</b>	100 products, expandable
<b>Display</b>	19" color TFT with touchscreen
<b>Working height</b>	750–850/800–900/850–950 mm <sup>2)</sup>
<b>Hygienic design</b>	Complete stainless steel model (1.4301), easy to clean product area, built-in drive technology
<b>Ambient conditions</b>	+5 °C up to +40 °C, relative humidity 20% – 80%
<b>Protection class</b>	IP54, IP65 <sup>3)</sup>
<b>Power supply</b>	230 VAC; 50 Hz; 3 kVA Connection with separate, 16 A fuse power line
<b>Optical sensor</b>	Black & white line sensor, color available by request
<b>Scanning width</b>	300 mm <sup>1)</sup>
<b>Scanning resolution</b>	73 µm pixel size <sup>4)</sup>

<sup>1)</sup> Wider models available by request

<sup>2)</sup> Other working heights by request

<sup>3)</sup> By request

<sup>4)</sup> Smaller pixel sizes available by request

They represent outstanding inspection technology that offers the highest level of safety and prevents expensive recalls due to product contamination, incorrect weight or faulty labeling. The easy-to-operate user interface familiar from the checkweigher range is used. The system is controlled from a 19" color TFT with touchscreen, which always displays the current inspection images. The All-In-One is made entirely of stainless steel and complies with protection class IP54 (IP65 optional). The balcony design, in combination with the C-shaped product area and the sloped surfaces, allows an easy, fast and thorough cleaning. The machine meets the highest hygiene requirements.

## Main Features

- Modular design
- Multiple inspection possibilities in one compact unit
- Reliable foreign body inspection and checkweighing
- Label and code inspection
- Cover film verification
- Best before date check
- Barcode verification
- A central HMI for easy operation

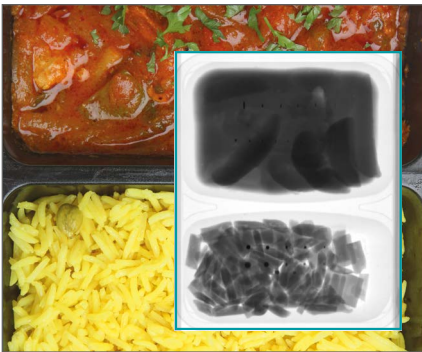
## Your Benefits

- Highest product safety against foreign bodies
- Guarantee of product integrity

# / Wipotec x-ray image processing software: for maximal product and consumer safety

The challenge facing today's market is the steadily increasing demand for quality and safe foods. Foreign objects like metal, glass, stone, bone, and etc. pose a real threat to the health of the consumers. Quality features such as the completeness of the products, their perfect form and the correct fill level take on ever more significance.

Quality standards like HACCP, BRC, and IFC help to design an efficient quality assurance system with the primary aim being optimal product quality in addition to consumer safety. Achieving this without limiting productivity in today's production processes requires fully automated and reliable inspection systems.



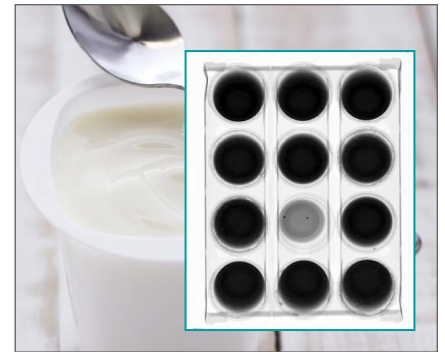
**Ready meals in tray**

- ✔ Foreign body scan
- ✔ Quantity control



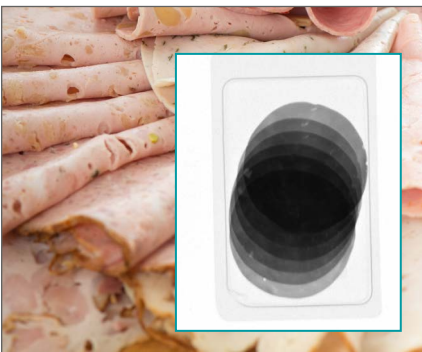
**Fish in tray**

- ✔ Foreign body detection
- ✔ Completeness control (missing tray)



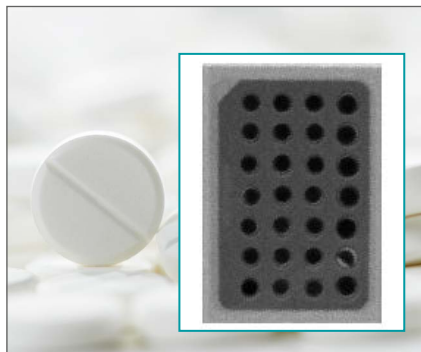
**Yoghurt in tray**

- ✔ Foreign body detection
- ✔ Fill level control
- ✔ Completeness control



**Cold meats, Sliced and packed in PVC**

- ✔ Foreign body scan



**Drug products in blister pack**

- ✔ Foreign body detection
- ✔ Completeness check
- ✔ Broken product
- ✔ Package leaflet control



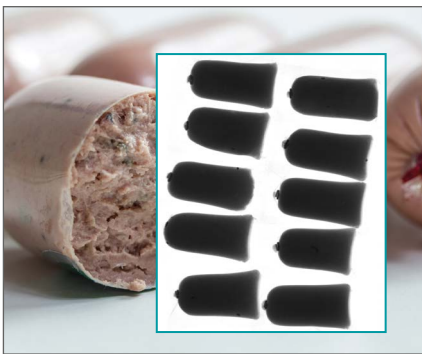
**Bulk materials, loose**

- ✔ Foreign body detection



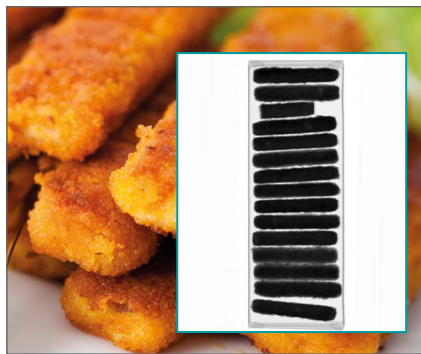
### Comprehensive inspection: Foreign body detection with checks for completeness, form, and proper fill levels

Specialising in high precision product inspection and highly flexible in application, our component based inspection systems deliver an outstanding contribution to even greater safety for products and consumers.



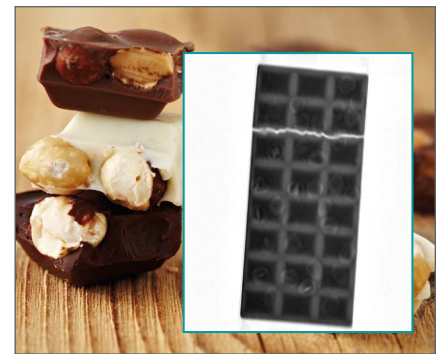
#### Sausage/cold meats with clip seals

- ✔ Foreign body detection
- ✔ Clip and fill level control
- ✔ Clip recognition (missing clip)



#### Fish sticks

- ✔ Foreign body scan
- ✔ Completeness check
- ✔ Broken product



#### Chocolate

- ✔ Foreign body detection
- ✔ Broken product
- ✔ Nut distribution
- ✔ Completeness check



#### Pizza

- ✔ Foreign body detection
- ✔ Form check
- ✔ Broken product
- ✔ Surface control



#### Cheese

- ✔ Foreign body detection
- ✔ Measuring density
- ✔ Automated grading



#### Praline box

- ✔ Foreign body detection
- ✔ Completeness check
- ✔ Form control
- ✔ Position check

# Raise your production to the next level:

fast, cost-saving,  
and profitable!

## Contact us!



2,5386

3,2084

2,9247

## Headquarters

WIPOTEC GmbH  
Adam-Hoffmann-Str. 26  
67657 Kaiserslautern  
Germany

T +49 631 34146-0  
F +49 631 34146-8690  
info@wipotec.com  
wipotec.com

**WIPOTEC** 