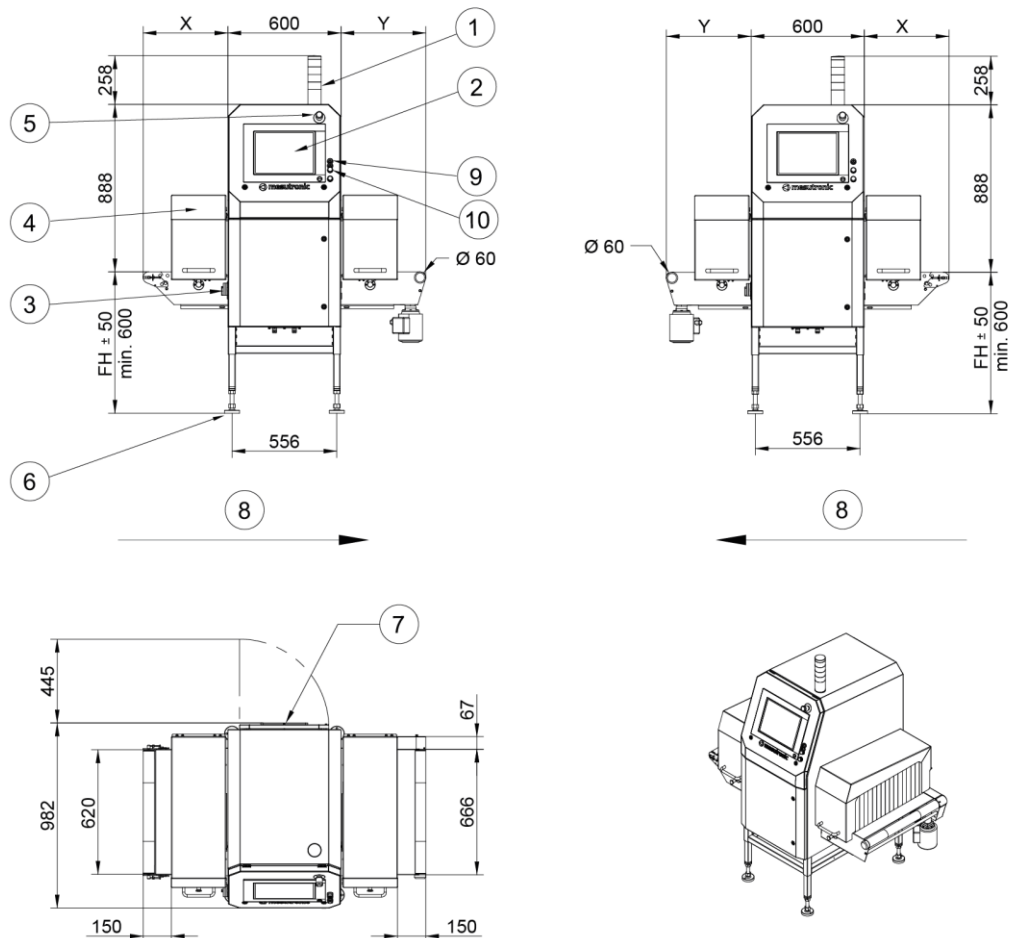


Dimensions without separation system



All dimensions in [mm]

- | | | |
|-------------------------------|--|--------------------------------|
| 1 Signal tower | 5 Emergency off switch | 9 Key switch (X-ray operation) |
| 2 Operating panel | 6 Adjustable feet <i>(optional: swivel castors)</i> | 10 USB port |
| 3 Main switch | 7 Fan with filter <i>(optional: air conditioning unit)</i> | |
| 4 Radiation protection tunnel | 8 Conveying direction | |

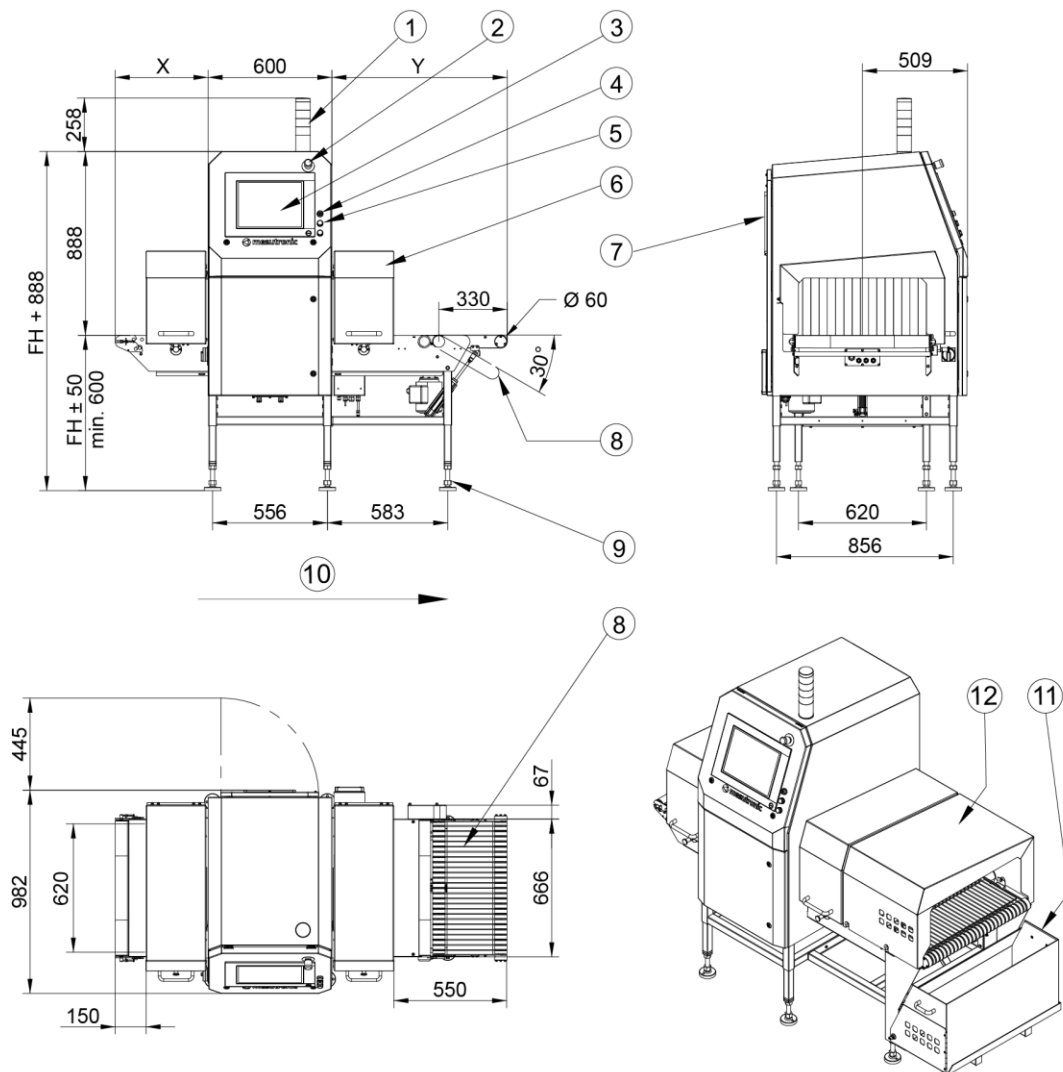
Conveying length (X, Y)									
X	450	650	850	1050	1250	1450	1650	1850	2050 *
Y	450	650	850	1050	1250	1450	1650	1850	2050 *

* Max. length – longer lengths on request

Conveying height (FH)															
Adjustable feet	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300
Swivel castors	-	-	-	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300

Note: Deviating conveyor lengths and heights must be agreed with Mesutronic GmbH.

Dimensions with separation system



All dimensions in [mm]

- | | | |
|--------------------------------|---|--|
| 1 Signal tower | 5 USB port | 9 Adjustable feet (optional: swivel castors) |
| 2 Emergency off switch | 6 Radiation protection tunnel | 10 Conveying direction |
| 3 Operating panel | 7 Fan with filter (optional: air conditioning unit) | 11 Optional: Collecting container |
| 4 Key switch (X-ray operation) | 8 Optional: Separation system (flap) | 12 Optional: Protective cover |

Conveying length (X, Y)									
X	450	650	850	1050	1250	1450	1650	1850	2050 *
Y	850	850	850	1050	1250	1450	1650	1850	2050 *

* Max. length – longer lengths on request

Conveying height (FH)															
Adjustable feet	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300
Swivel castors	-	-	-	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300

Note: Deviating conveyor lengths and heights must be agreed with Mesutronic GmbH.

Version 001-01

Mesutronic GmbH

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Device description

The **easySCOPE 600** is an X-ray inspection system for the reliable detection of metallic and non-metallic foreign objects such as glass, ceramics, stones or plastic.

Thanks to high-resolution image processing and intelligent evaluation algorithms, the system offers maximum detection accuracy and also enables quality checks such as weight and integrity checks.

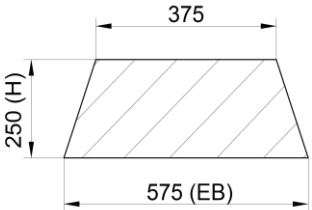
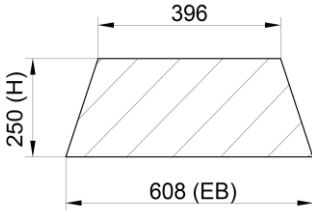
Areas of application

The easySCOPE 600 is suitable for a wide range of inspection tasks in the food and non-food sectors. The system is used in both sectors for reliable foreign body detection and quality control.

In the food sector, the easySCOPE 600 can be used to inspect meat and sausage products, baked goods, dairy products, ready meals, snacks and fruit and vegetables, for example.

The system can also inspect cosmetic products, plastic parts, packaging, electronic components and textiles in the non-food sector.

Product specification & ambient conditions

Inspection area	Product dimensions
	Sensitive width (EB) = 575 mm (on belt) – 0.8 x product height (H) Examples of product dimensions (width x height): 1) 567 x 10 mm 2) 535 x 50 mm 3) 495 x 100 mm 4) 455 x 150 mm 5) 415 x 200 mm 6) 375 x 250 mm
	Optional: Sensitive width (EB) = 608 mm (on belt) – 0.848 x product height (H) Examples of product dimensions (width x height): 1) 599 x 10 mm 2) 565 x 50 mm 3) 523 x 100 mm 4) 480 x 150 mm 5) 438 x 200 mm 6) 396 x 250 mm

Product shape	Packaged products
Product length	Max. 300 mm 300 mm to max. 600 mm – <i>on request</i>
Product temperature	-10°C to +70°C
Min. product weight	10 g (application-specific; required for opening the Radiation protection curtains) – <i>Product test is recommended</i>
Max. product weight	Approx. 10 kg at 1.0 m/s; 20 kg at 0.5 m/s conveying speed
Storage and transport conditions	-10°C to +60°C, 0 – 90 % (without condensation)
Operating conditions	Ambient temperature +5°C to 30°C (fan with filter) <i>Optional: +5°C to 40°C (with air conditioning unit)</i> Installation site: Interiors Degree of contamination: 2

The throughput capacity depends on product size, weight and conveying speed.

The detection accuracy is tested on a product-specific basis and depends on the material properties as well as the type, size and position of the foreign object. The detection quality remains consistently high even at high speeds.

Functional characteristics

Detection & testing

Foreign object detection	Detection of metallic and non-metallic foreign objects (e.g. glass, Ceramics, stones) using intelligent evaluation algorithms.
Quality inspection	Object counting <i>Optional: Weight test, integrity test, clip test</i>
Area management	Edge masking, segmentation <i>Optional: Clip masking</i>
Lane evaluation	Single-lane evaluation (standard) <i>Optional: Evaluation of up to four lanes</i>

Operation & software

Operating system	Windows 11
Operator interface	15" Touch display 4:3; tempered glass, capacitive
Multilingual capability	Multilingual user interface

Product & user management

Product management	Storage and management of max. 500 products with individual parameters.
Log book / logging	Max. 100,000 entries
Automatic learning of products	User-friendly configuration of the detection settings with Wizards for product learning.
Event / product counter	Display on the display, exportable

Communication

Interfaces	Ethernet (LAN), USB
Communication protocols	OPC UA, XML

Security & system control

Functional test	Software-based detector test and monitoring of device functions
X-ray	Radiation measurement, signal plot
Password protection	Customised access and user management
Test function	Detector test, contamination level, self-diagnosis
Protected against power failure	Settings & data protected against power failure, exportable

Device design

X-ray technology

X-ray tubes	Generator – max. 80 kV / 5 mA (210 W)
Receiver width	614 mm; <i>optional: 666 mm</i>
Receiver resolution	0.8 mm; <i>optional: 0.4 mm</i>
Radiation emission	< 0.5 µSv/h
Radiation protection curtain	Lead-free rubber matrix with reinforcement fabric (blue), FDA approved

Mechanical design

Surfaces / housing	Stainless steel AISI 304, sandblasted
Construction method	Housing, folding radiation protection tunnel (item 6) and conveyor belt
Weight	Approx. 500 kg
Protection class	Housing IP 55 (<i>optional IP 65</i>) / conveyor belt system IP 65

Conveyor technology

Belt width	620 mm
Roller diameter	Ø 60 mm
Belt material	TPU white (<i>optional: blue</i>), smooth, non-adhesive, without studs and Corrugated edge - EU / FDA / USDA-compliant
Slide plate	HPL plate
Conveying length	1500 – 4100 mm (without separation) 1900 – 4100 mm (with separation) <i>- longer lengths on request -</i>
Conveying height	650 – 1250 mm ± 50 mm
Conveying direction	Horizontal: Left–right or right–left
Conveying speed	Up to 1.2 m/s – <i>adjustable for specific applications</i>

Drive and cooling

Motor	Worm gear motor
Cooling	Fan with filter (<i>optional: air conditioning unit</i>)

Electrical design

Operating voltage	230 V AC +/- 10%, 50/60 Hz; <i>optional: 115 V AC, 60 Hz</i>
Power consumption	Fan with filter: max. 670 W; <i>optional: Air conditioning unit: max. 840 W</i>
Mains cable	3 m cable with Schuko plug
Signalling elements	LED signal light: red; yellow; blue; green, <i>optional: acoustic</i>
Sensors	Entry light barrier, rotary encoder
Control components	PLC, safety controller, frequency converter
Switching inputs and switching outputs	Enable signals for predecessor and successor systems - <i>Further options on request</i> -

Standard scope of delivery

Product inspection system without separation system:

Conveyor system, radiation protection covers, radiation protection curtains, subframe

Operating instructions with spare parts list and electronic connection diagram

EU Declaration of Conformity:

- 2006/42/EC - Machinery Directive
- 2014/30/EU - EMC Directive
- 2011/65/EU - RoHS Directive
- EC 1907/2006 - REACH - Regulation
- 2013/59/EURATOM – Radiation protection

Product inspection system with separation system (Compressed air supply: min. 6 bar - max. 10 bar):

Plus compressed air and function monitoring, entry light barrier, collecting container fill level control

Versions

- **US package:**
Operating voltage: 115 V AC, 60 Hz
FDA compliant – (21 CFR Part 1020.40, 21 CFR Part 21 1010)
NRTL certification (UL 61010-1, UL 61010-2-091)

Conformity

Optionally available:

- FDA – Contact with food (documentation)
- France: NF C 74-100 & NF C 74-100 ADD 3

Options

X-ray technology:

- X-ray receiver 666 mm
- Lane evaluation for up to four lanes, including associated sensors

Mechanical design:

- Separation system: Pusher | Over-belt pusher | Flap,
Stainless steel collecting container (lockable, hinged) and protective cover
- Swivel castors – Stainless steel AISI 304

Drive and cooling:

- Stainless steel air conditioning unit (+2°C to +40°C)

Electrical design:

- Operating voltage: 115 V AC, 60 Hz

Service / connectivity / confirmation:

- mesuCOMPKIT (sensor package)
- mesuREMOTE (remote maintenance kit)
- mesuLINK (networking software)
- mesuEXPORT (automatic protocol export)
- RFID user authentication

Accessories

Conveyor technology:

- Side guide rails: Stainless steel, inside the radiation protection curtains
- Wear protection: Thermoplastic polyurethane (TPU), transparent
- Curtain at the infeed of the radiation protection curtains (no food approval)
- Conveyor belt: TPU blue, smooth non-adhesive, without studs and corrugated edge – EU / FDA / USDA-compliant
- Signal tower: acoustic

Software:

- Integrity test, clip test, clip masking, weight test

Miscellaneous:

- Test cards: Various designs and materials on request

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Note:

If you require further product information that goes beyond the content of this technical data sheet and in particular concerns a specific use and the application of this product, please contact us.