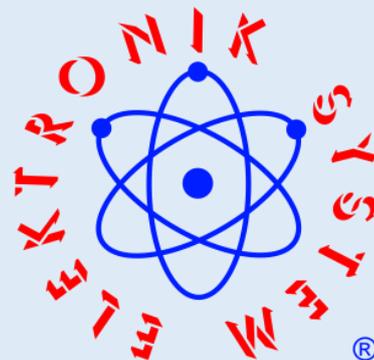


# INDUSTRIAL METAL DETECTOR **ELEKTRON-MD** TO BIG PRODUCTS



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## APPLICATION

Metal detectors of the **ELEKTRON-MD** type are used randomly in the decision food. These dedicated devices are unpackaged products like also in packages such as E1 or E2 boxes, bags or cartons. Metal detectors are designed to test products such as:

- meat, cold cuts, fish, seafood - fresh and also frozen,
- dairy products - milk, cheese, cream, etc.,
- vegetables and fruits - fresh, frozen and processed,
- bakery and confectionery products - bread, rolls, cakes, etc.,
- ready-made products - ready-made dinner dishes, e.g. pizza,
- pasta, oatmeal, rice, breakfast cereals, groats,
- Spices,
- coffee beans, ground coffee, instant coffee,
- bread crumbs, sugar, salt, semolina, flour,
- teas, herbs, dried fruit,
- nuts and dried fruits - short, ready for the confectionery industry,
- and many others

## PRINCIPLE OF OPERATION

The metal detector is equipped with a transmitter coil and two receiver coils. Coil transmitter generates a constant frequency signal. On both sides of the transmitter coil the two receiver coils that receive the signal are evenly distributed. Detector metal measures the voltage difference between the coils and then the differential between them in a signal. Any electrically conductive objects moving between the coils the difference in tensions between them. Each item will produce a little difference, items. Make a much bigger difference by allowing them to be detected in products non-metallic. In this way, the industrial metal detector can distinguish the product not contaminated with metal contaminated product.

## MARKING

- H** - (hard work) detector dedicated to work in difficult conditions..
- F** - detector with built-in system „FROST“.
- S** - (separation) detector having a separator.
- G** - the metal detector tape has the so-called rubber gripper.

## YOUR BENEFITS

- Warranty and post-warranty service within 24 hours.
- Lifetime warranty on probes (without electronics).
- Technical support by phone or e-mail.
- Publicly available spare parts from well-known and reputable companies.
- Repair and modernization of SEK in accordance with the requirements and expectations of our customers.
- Reactivation and improvement of our detectives, even the oldest ones, for a generation.
- Consultation and training.
- Periodic inspections.
- Compliance with HACCP, CE, IFS and NEC standards.

## WHAT MAKES US STAND OUT?

The **ELEKTRON-MD** series of detectors has a system that is unique in other detectors contactless auto-learning. The self-learning system analyzes the tested product and saves detection parameters (e.g. product influence and background automatically). By controlling the conveyor, the detector automatically moves the product through the probe window detecting forward and backward until the completion of learning. The solution is to facilitate help with heavy products. As a result, learning is much more accurate without interruption a also the level of detection and stability of the metal detector operation.

Our metal detectors have an auto-calibration system, thanks equipment on non-service inspection decks. Detection system it oscillates precisely at the tested frequency, it adjusts the variables itself values. The management system is designed to withstand every shutdown the detector from the network automatically performed a test and calibration for about 15 minutes system after restarting the computer.

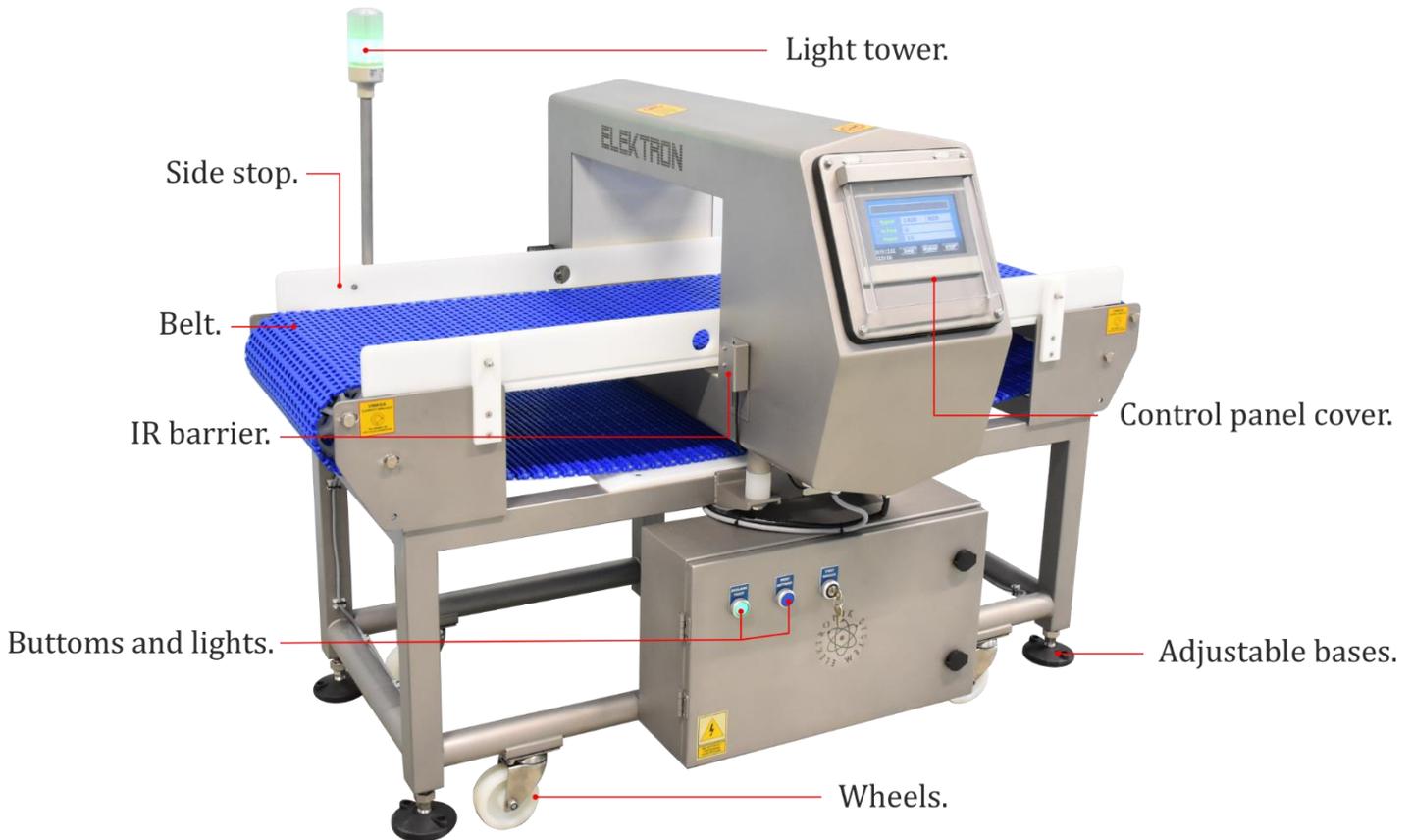
Our metal detectors can be equipped with unparalleled in other detectors, the „**FROST**” **system** \* with an integrated intelligent heating and thermostat system, inside controls, internal controls and electronic circuits against moisture chill. This is the only protection against extreme temperatures during installation and prevents the absorption of moisture inside (for example, cold washing machine, hot washing water). Machine operation in a cold store and with a frozen stand.

# Auto Nauka

# Nauka

**Uwaga: Aktualizacja ...**

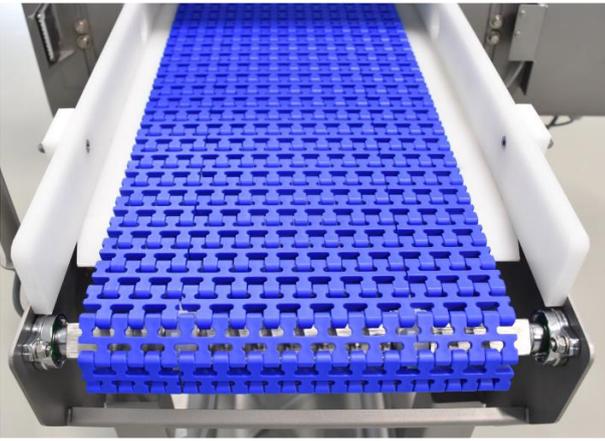
## COMPONENT PARTS



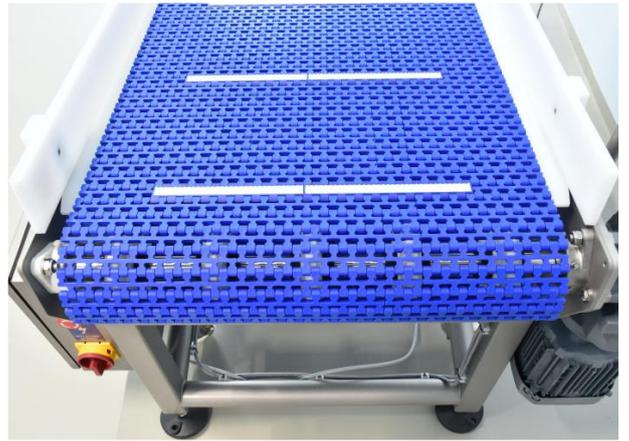
## MAIN FEATURES

- Clear, 7 "color touch screen.
- Transparent polycarbonate control panel cover.
- Menu in Polish and English (standard).
- Menu in German, Russian, Italian, French, Spanish, Turkish, Arabic and others (option on request).
- Intuitive menu and simple operation.
- History of tested products, date and time.
- USB port for data collection and transfer to portable.
- Memory function for testing 100 different products.
- Auto-learning system.
- Automatic system self-calibration.
- Password protected access levels.
- IP-69 probe tightness class, IP-54/65 conveyor drive.
- Voltage free output signals:
  - detection enabled
  - metal detection
  - start the transporter
  - NO / NC stop of another machine or conveyor belt
- Growth and increase in work compared to the detectors of the previous generation.

## MODULAR BELTS

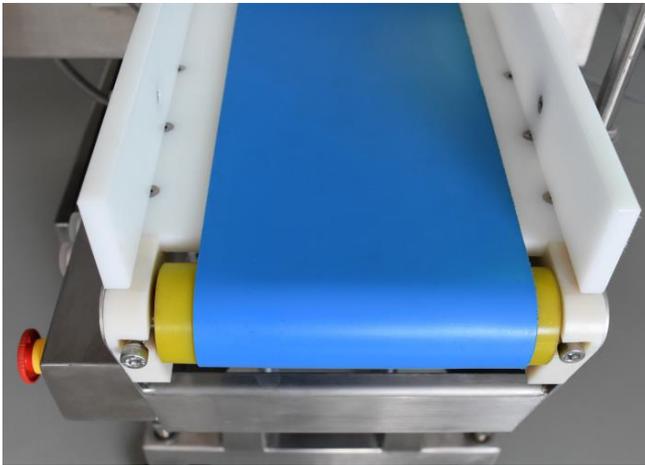


Standard modular belt

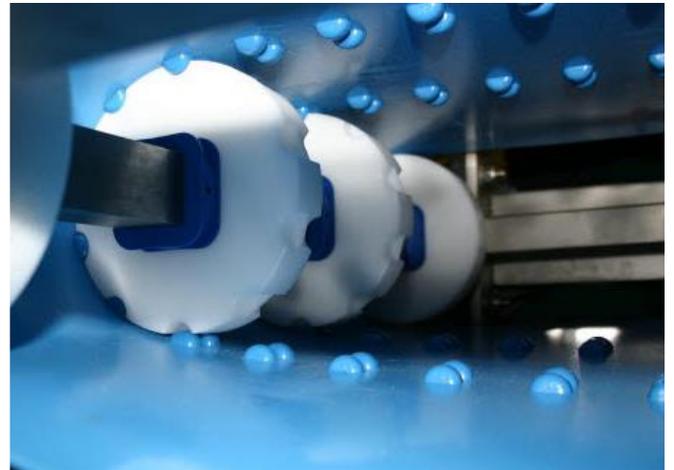


Belt with gripper

## POLYURETHANE BELTS

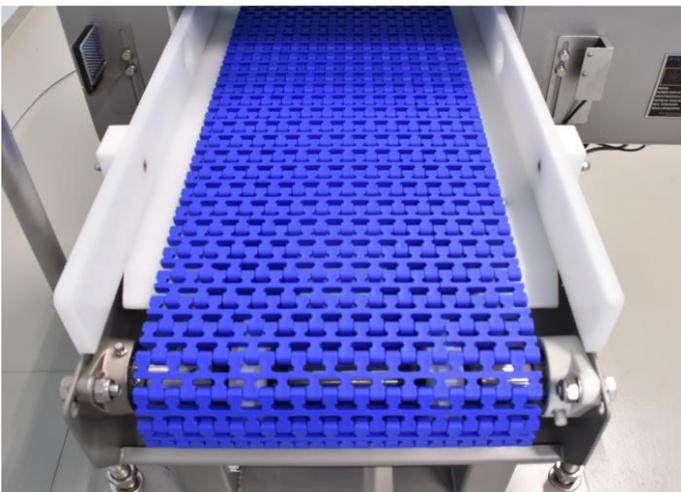


Standard polyurethane belt

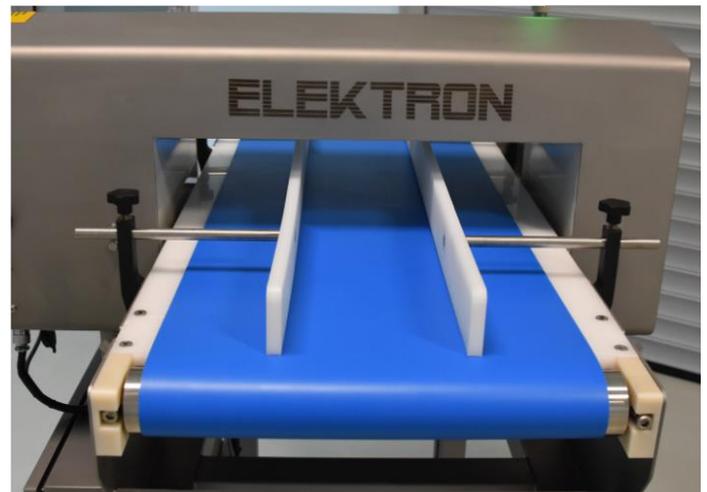


Polyurethane belt with wheel

## TYPES OF SIDE STOP



Permanent side stop



Adjustable side stop

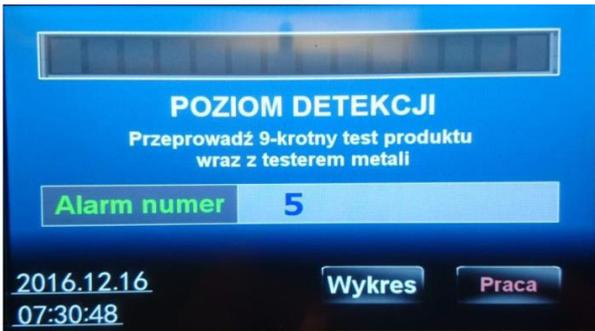
# SYSTEM FUNCTIONS



Autocalibration system



Self-learning system



Automatic detection enforcement system



Detection menu



Detection analysis graph



Clear parameter setting system

L.p.	Początek	Koniec	Nr. Prod.	Ilość Prod.
1	2020-04-15 11:52:31	2020-04-15 11:54:53	0	0

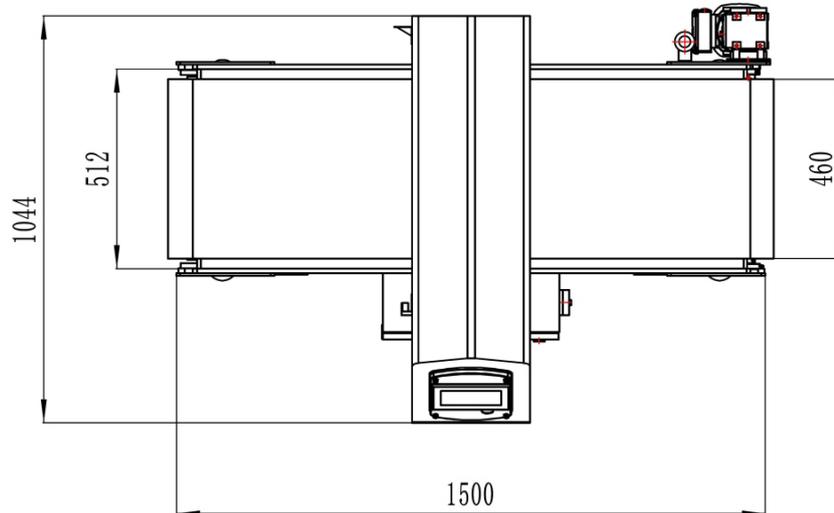
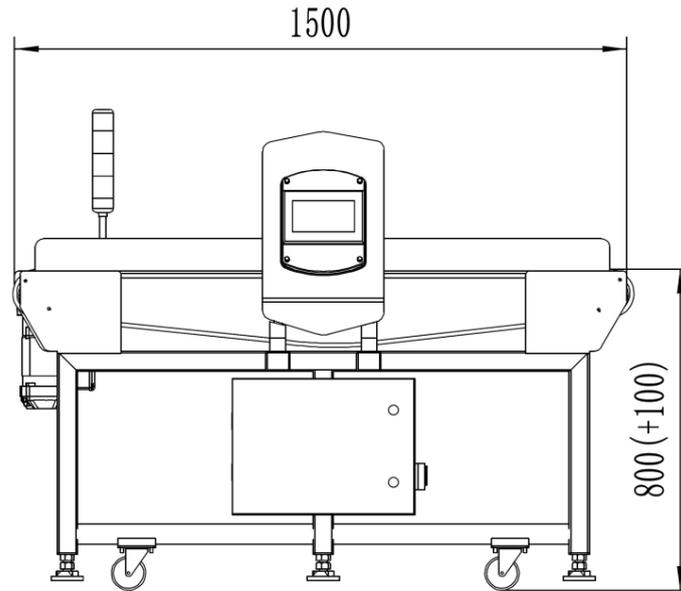
History of detection

Nr.	Data	Czas	Produkt
45	20/04/08	09:45:35	0
44	20/04/08	09:45:33	0
43	20/04/08	09:45:30	0
42	20/04/08	09:45:28	0
41	20/04/08	09:45:25	0
40	20/04/08	09:45:22	0

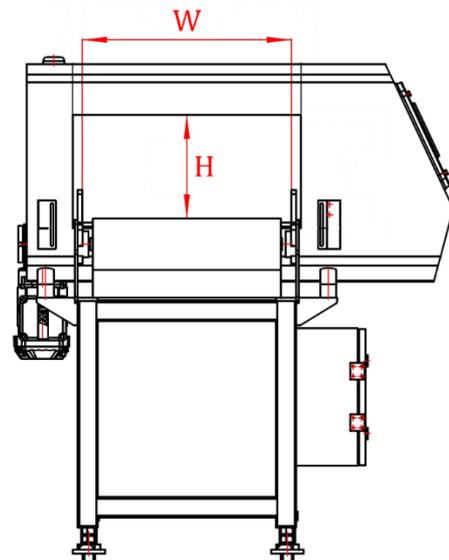
Alarm history



Series		ELEKTRON-MD
Detection level	Fe	from Ø 1,0 mm
	NoFe	from Ø 1,2 mm
	St/st	from Ø 1,5 mm
The width of the conveyor belt		460 mm
Max load		50 kg/m <sup>2</sup>
Standard lenght transporter		1500 mm (optional other lenght)
Standard high transporter		800+100 mm (optional other high )
Operator panel		HMI touch screen (optional buttons analogy)
Type coneyor belt		Modular (optional polyurethane)
Direction work transporter		From left to right (from right to left optional)
Type of control panel cover		Polycarbonate(optional stainless steel)
Side stop		Permanent (optional adjustable)
Signaling of contamination detection		Optical and acoustic alarm and stopping the conveyor belt
Speed conveyor belt		Adjustable scope 0-35 m/min (optional permanent)
„FROST” system		Optional
Power		230 V, 50 Hz
Working temerature		0-45°C
Material		Glazed stainless steel

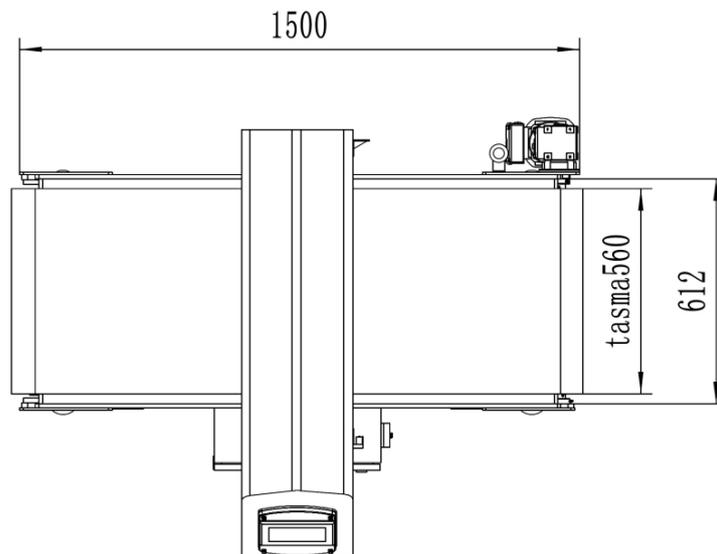
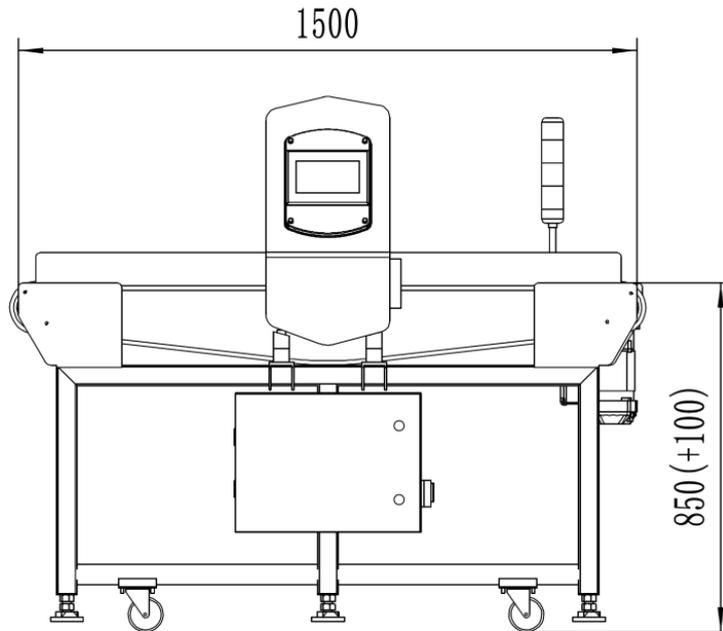


Type	Maximum height products <b>H</b>	Maximum width products <b>W</b>
<b>MD-5005</b>	50 mm	460 mm
<b>MD-5010</b>	100 mm	460 mm
<b>MD-5015</b>	150 mm	460 mm
<b>MD-5020</b>	200 mm	460 mm
<b>MD-5025</b>	250 mm	460 mm
<b>MD-5030</b>	300 mm	460 mm
<b>MD-5035</b>	350 mm	460 mm
<b>MD-5040</b>	400 mm	460 mm

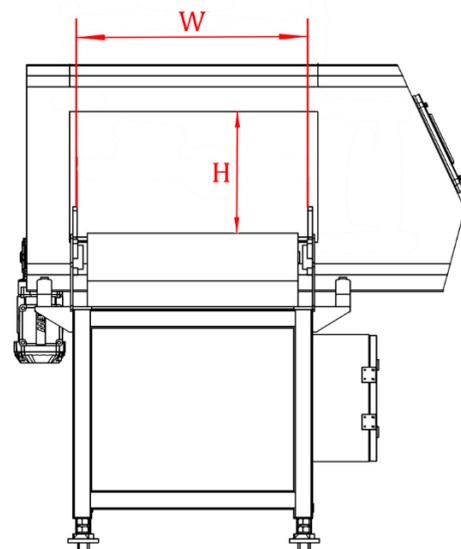




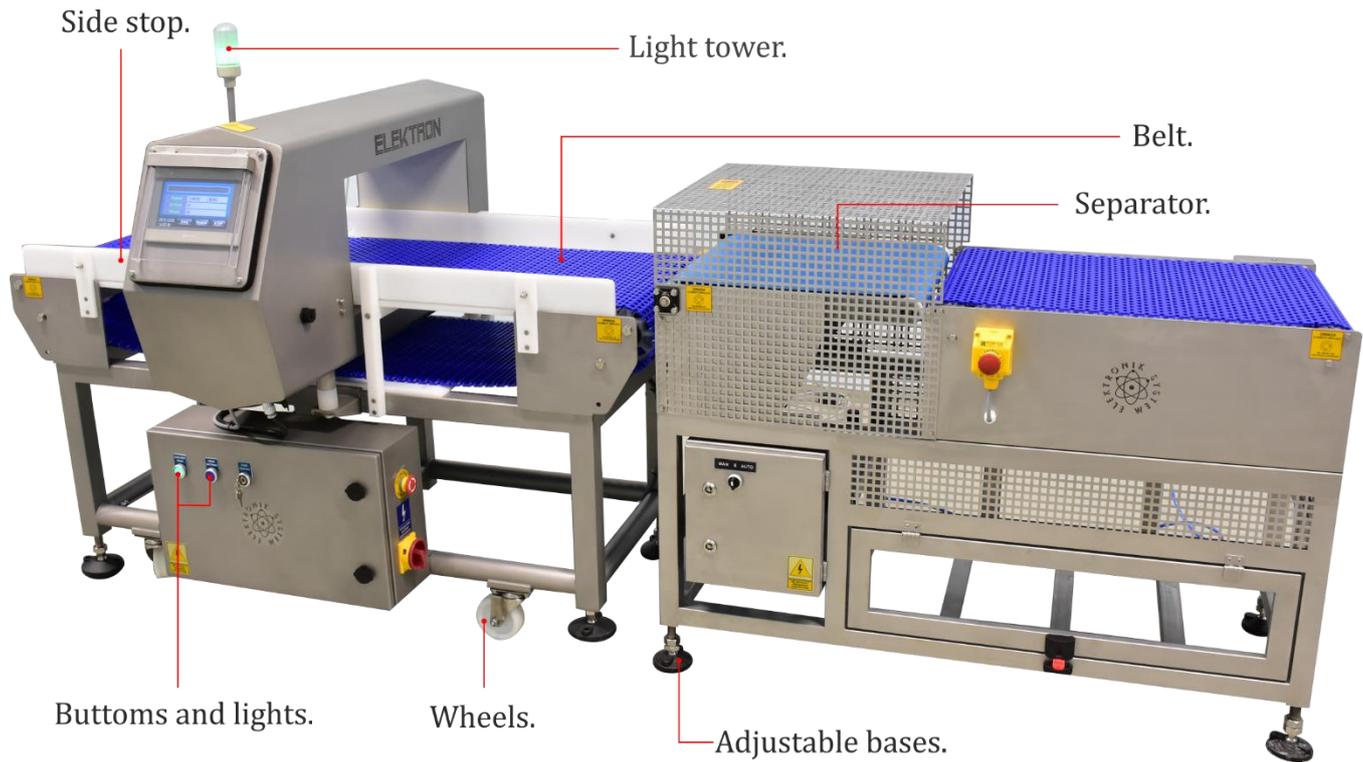
Series		ELEKTRON-MD
Detection level	Fe	from Ø 1,0 mm
	NoFe	from Ø 1,2 mm
	St/st	from Ø 1,5 mm
The width of the conveyor belt		560 mm
Max load		50 kg/m <sup>2</sup>
Standard lenght transporter		1500 mm (optional other lenght)
Standard high transporter		800+100 mm (optional other high)
Operator panel		HMI touch screen (optional buttons analogy)
Type coneyor belt		Modular (optional polyurethane)
Direction work transporter		Form left to right (from right to left optional)
Type of control panel cover		Polycarbonate (optional stainless steel)
Side stop		Permanent (optional adjustable)
Signaling of contamination detection		Optical and acoustic alarm and stopping the conveyor belt
Speed conveyor belt		Adjustable scope 0-35 m/min (permanent optional)
„FROST” system		Optional
Power		230 V, 50 Hz
Working temerature		0-45°C
Material		Glazed stainless steel



Type	Maximum height products <b>H</b>	Maximum width products <b>W</b>
<b>MD-6005</b>	50 mm	560 mm
<b>MD-6010</b>	100 mm	560 mm
<b>MD-6015</b>	150 mm	560 mm
<b>MD-6020</b>	200 mm	560 mm
<b>MD-6025</b>	250 mm	560 mm
<b>MD-6030</b>	300 mm	560 mm
<b>MD-6035</b>	350 mm	560 mm



## COMPONENT PARTS



## MAIN FEATURES

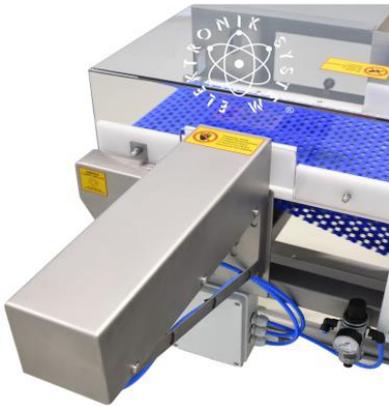
- Easy to read 7 "touch screen.
- Automatic pneumatic separator.
- Lockable container for rejected products.
- Recoil IR sensors and full right.
- Cover of the detection zone made of transparent polycarbonate.
- Transparent polycarbonate control panel cover.
- Menu in Polish and English (standard).
- Menu in German, Russian, Italian, French, Spanish, Turkish and Arabic (optional).
- Intuitive menu and simple operation.
- History of tested products, date and time.
- USB port for reading data to a flash drive.
- Memory function for testing 100 different products.
- Auto-learning system.
- Automatic system self-calibration.
- Password protected access levels.
- IP-69 probe tightness class, IP-54/65 conveyor drive.
- Voltage free output signals:
  - detection enabled
  - metal detection
  - start the transporter
  - stopping the machine or the conveyor belt
- Growth and increase in work compared to the detectors of the previous generation

## TYPE OF REJECTOR SYSTEMS



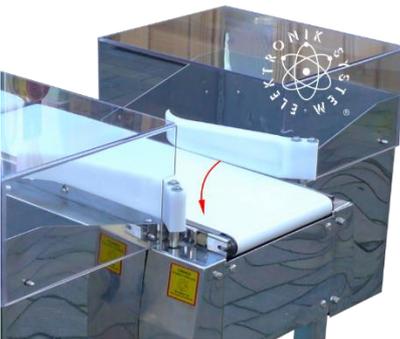
### **Blower (nozzle)**

A very efficient and effective system for light products.



### **Pusher**

Standard recoil system with adjustable height. Depending on the product - the possibility of using various flat tips with a width adapted to the product.



### **Scraper arm**

Fast recoil system to save installation space.



### **Trap**

The only reliable recoil system for bulk products.



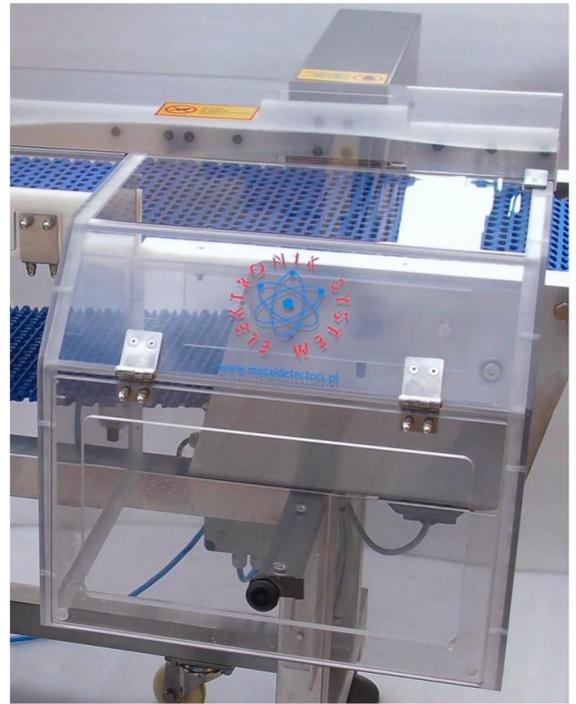
### **A trapdoor in the form of a falling conveyor**

Recoil system designed for long products

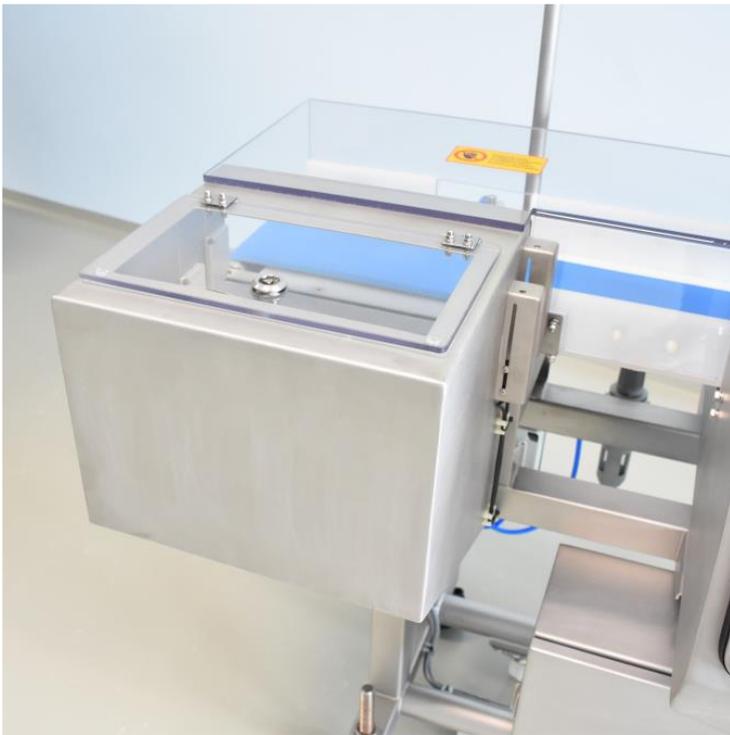
## TYPES OF REJECTED PRODUCT CONTAINERS



Hanging stainless steel container



Hanging polycarbonate container



Hanging stainless steel container with top opening



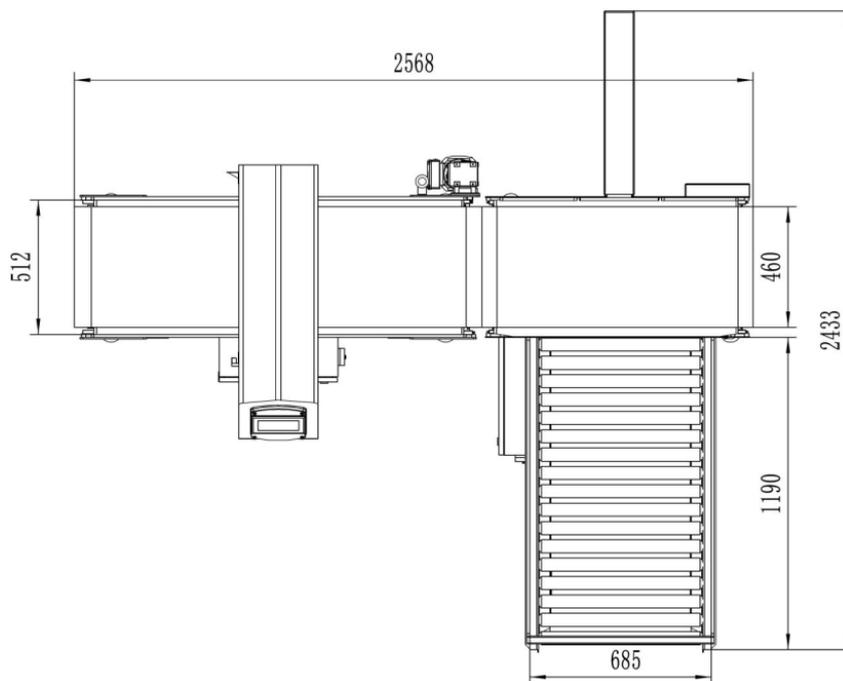
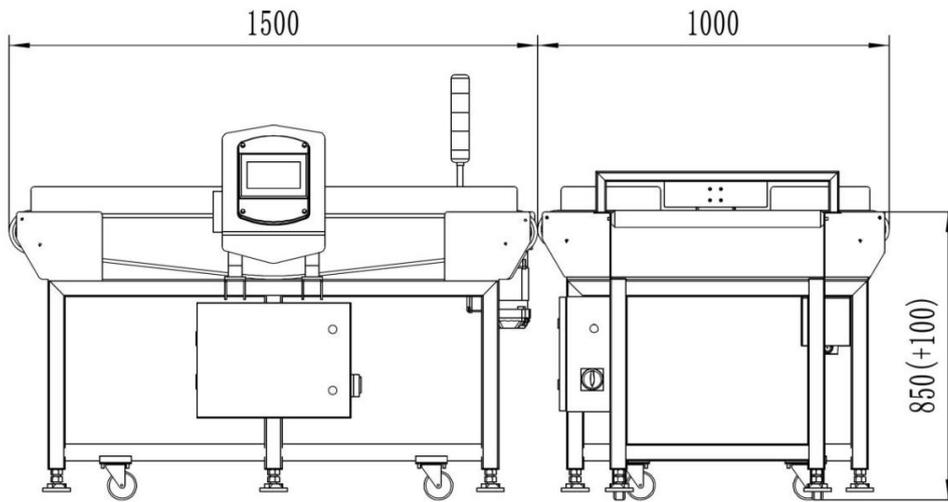
A standing container made of acid-resistant steel



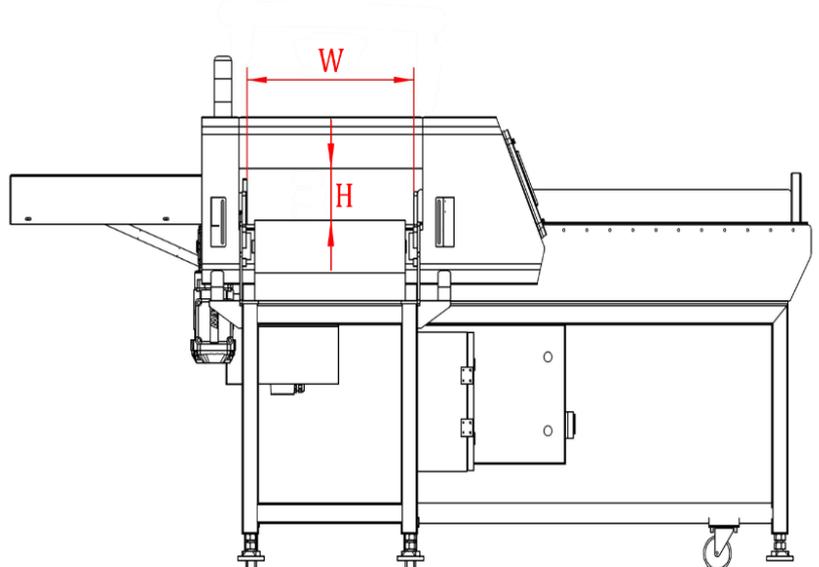
Metal detector with roller deflector for E1 and E2 boxes and for cardboard boxes.

Series		ELEKTRON-MD
Detection level	Fe	from Ø 1,0 mm
	NoFe	from Ø 1,2 mm
	St/st	from Ø 1,5 mm
The width of the conveyor belt		460 mm
Max load		50 kg/m <sup>2</sup>
Standard lenght transporter		1500 mm (optional other lenght )
Standard high transporter		800+100 mm (optional other high)
Operator panel		HMI touch screen (optional analaogy buttons)
Type conveyor belt		Modular (optional polyurethane)
Direction work transporter		From let to right (from right to left optional)
Type of control panel cover		Polycarbonate (optional stainless steel)
Protection zone cover		Polycarbonate optional
Side stop		Permanent (optional adjustable)
Signaling the detection of pollution		Optical and acoustic alarm and stopping the belt conveyor
Container for rejected products		Policarbonate (optional stainnles steel)
Confirmation of the discharge of contaminated product		Optional
Signal of a filled container		
Speed conveyor belt		Adjustable scope 0-35 m/min (optional permanent)
„Frost” system		Optional
Power		230 V, 50 Hz
Working temerature		0-45°C
Material		Glazed stainless steel

# TECHNICAL DRAWINGS



Type	Maximum height products <b>H</b>	Maximum width product <b>W</b>
<b>MD-5005</b>	50 mm	460 mm
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<b>MD-5030</b>	300 mm	460 mm
<b>MD-5035</b>	350 mm	460 mm
<b>MD-5040</b>	400 mm	460 mm



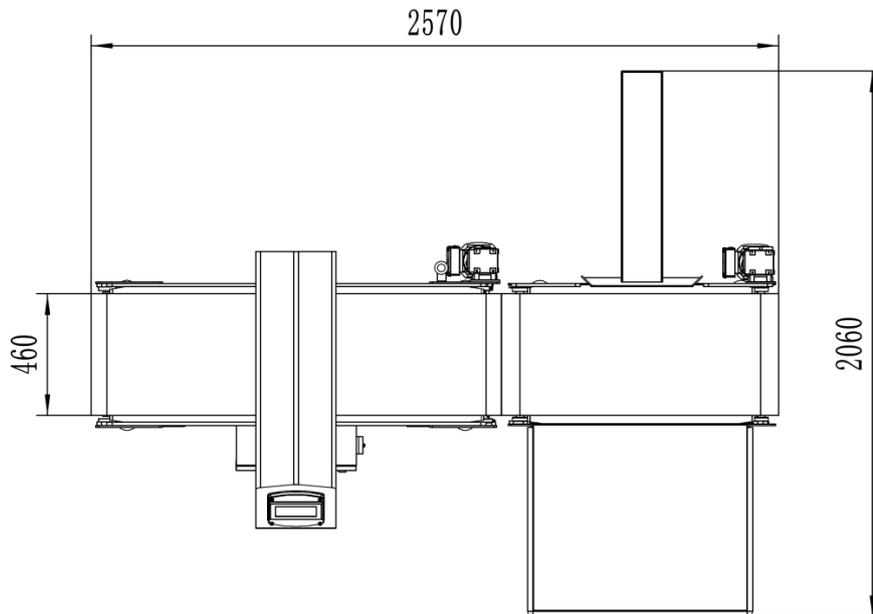
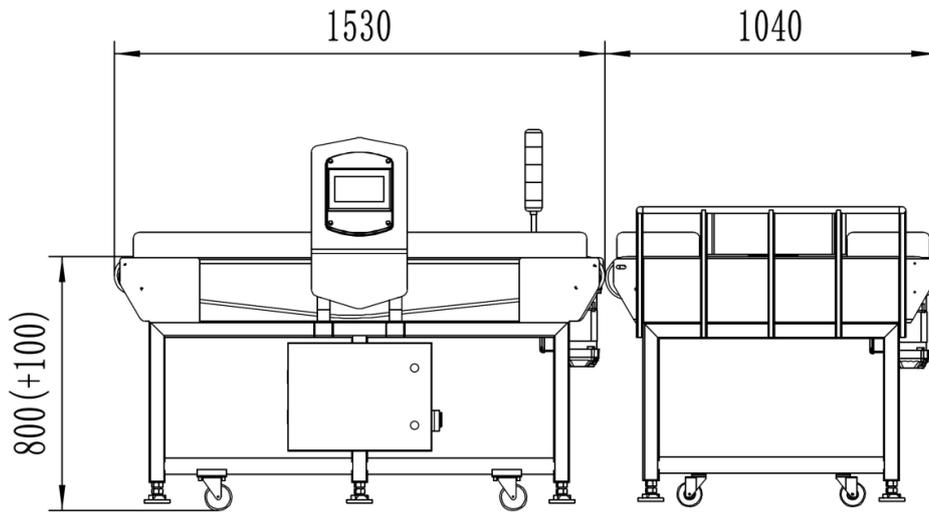
METAL DETECTOR ELEKTRON-MD-6025-E-HF-5



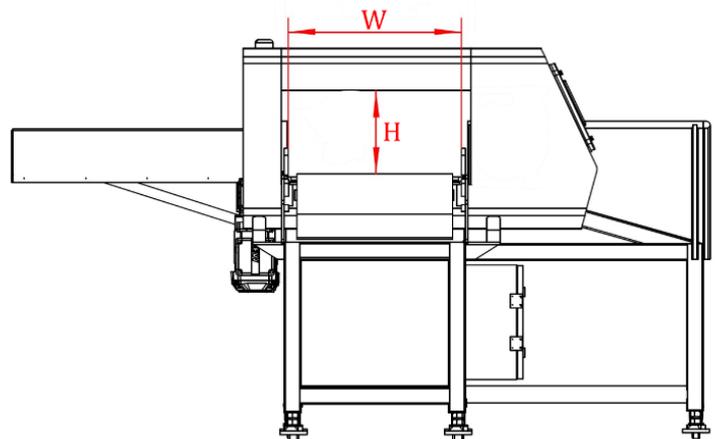
Metal detector with a ramp for products packed in bags or cartons.

Series		ELEKTRON-MD
Detection level	Fe	from Ø 1,0 mm
	NoFe	from Ø 1,2 mm
	St/st	from Ø 1,5 mm
The width of the conveyor belt		560 mm
Max load		50 kg/m <sup>2</sup>
Standard lenght transporter		1500 mm (optional other lenght )
Standard high transporter		800+100 mm (optional other high)
Operator panel		HMI touch screen (optional analaogy buttons)
Type conveyor belt		Modular (optional polyurethane)
Direction work transporter		From let to right (from right to left optional)
Type of control panel cover		Polycarbonate (optional stainless steel)
Protection zone cover		Polycarbonate optional
Side stop		Permanent (optional adjustable)
Signaling the detection of pollution		Optical and acoustic alarm and stopping the belt conveyor
Container for rejected products		Polycarbonate (optional stainnles steel)
Confirmation of the discharge of contaminated product		Optional
Signal of a filled container		
Speed conveyor belt		Adjustable scope 0-35 m/min (optional permanent)
„Frost” system		Optional
Power		230 V, 50 Hz
Working temerature		0-45°C
Material		Glazed stainless steel

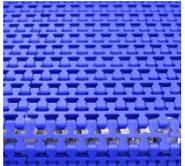
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<b>MD-6030</b>	300 mm	560 mm
<b>MD-6035</b>	350 mm	560 mm



## COMPONENTS METAL DETECTORS

Pictures	Name	Manufacturer
	Optical – acoustic indicator	Schneider Electric
	Inverter	Yaskawa 1000
	Engine	Oriental Motor
	Engine	SEW
	IR barriers	Telemecanique
	Buttons and lights	EMA
	Display	WE!NVIE W
	Conveyor belt	SYNCHROTECH

OUR METAL DETECTORS IN THE PRODUCTION LINE

