

X-RAY SCANNER ELEKTRON-SXRF- 4080-ASG 60/120



Ustronna 14
89-606 Charzykowy

wykrywaczmetali@onet.eu
elektron@metaldetektor.pl

+48 608 34 34 34



PRINCIPLE OF OPERATION

Purpose.

ELEKTRON-SXRF -ASG 60/120 is designed to test all loose products such as coffee, tea, herbs, bread crumbs, pasta, sugar, salt, oatmeal, breakfast cereals, rice, groats, dried fruit, nuts, etc.

How it works?

Popularly known as X-Ray, it works by sending a beam of ionizing radiation X-Ray, which is captured by the receiver. The inspected product moves between the lamp and the receiver. Detection is based on the principle of comparing the image of the reference product that the X-Ray Scanner has learned, the system detects the difference in density caused by the foreign body in relation to the image of the learned product. The easiest way to explain the principle of operation of the X-Ray Scanner - this technology is based on the detection of all foreign bodies, the density and specific gravity of which is higher than that of water (each body that immediately sink into water). Such foreign bodies include, first of all, metals, stones, glass, bones and hard plastic.

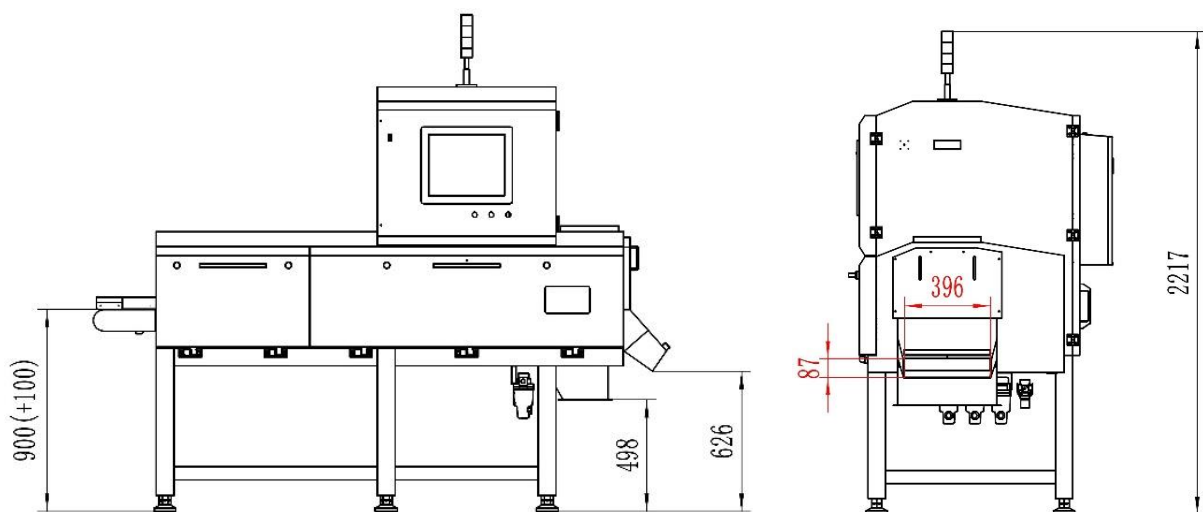
Detection range.

X-Ray Scanner it is distinguished by high sensitivity and stability of work – the highest possible to achieve, with the highest penetration of X-rays, by the product and its packaging: SUS - \varnothing 0.3 mm, SUS wire 0.2x2 mm, glass - \varnothing 1.0 mm, ceramics - \varnothing 1.0 mm, stone - \varnothing 1.0 mm when using a high-power lamp and LED receiver - 0.4 mm for small and.

SYSTEM „FROST”

The X-Ray scanner can be equipped with the "FROST" system, rare in other devices, with a built-in intelligent heating and thermostat system, inside the control panel, which protects the internal electronics against moisture and cold. It is the only protection against sudden temperature changes during washing and prevents the absorption of moisture inside (for example, a cold machine washed with hot water).

TECHNICAL DRAWINGS



MAIN FEATURES

- **Permit by the President of the National Atomic Energy Agency No. D-17869.**
- Single beam product scanning technology with one top down lamp.
- ASG (air shotgun) - separator with air nozzles.
- The X-Ray scanner detects stones, all metals, glass, hard plastic.
- X-Ray safety - maximum radiation level of 0.23 μ SV/h in accordance with EU standards.
- 17 "color monitor.
- Operation via the touch panel.
- High image resolution.
- Built-in computer memory, 120Gb SSD operating disk.
- Contactless product auto-learning system.
- Built-in 100MB data transfer link.
- Conveyor speed - 10-120 m/min, adjustable depending on the specificity of the product.
- Smooth management of each detection zone increasing the level and quality of scanning.
- Unique, full-range, multi-layer product control system.
- Easy-to-use intuitive menu.
- Service support and supervision over LAN.
- Automatic system diagnostics.
- High level of security.

LIST OF COMPONENTS

FUNCTION	NAME	MANUFACTURER
X-Ray source	X-Ray generator	VJ USA
X-Ray receiver	X-Ray detector	DT FINLANDIA
Device management	17" touch display	iEi
Data processing	Industrial computer	TANK 820
Temperature and humidity control	Air conditioner	PFANNENBERG
Conveyor belt drive	Gear motor	ORIENTAL MOTOR
Speed regulation	Inverter	YASKAWA/OMRON
Electric protection	Switches overcurrent	SCHNEIDER ELECTRIC /ABB
Connection between devices	Military connectors	PLT
Safety management	Limit switches	OMRON
Automation management	PLC drivers	OMRON
Warning information	Optical-acoustic indicator	SCHNEIDER ELECTRIC

ASG AIR NOZZLE SYSTEM



PARAMETERS

Model	ELEKTRON-SXRF	
Specification	4080	
Maximum height of the test product	110 mm	
Maximum width of the test product	400 mm	
X-Ray Lamp	MAX. 80 kV, 350W	
Smallest detectable testers possible	St/st ball from 0.3 mm, wire from 0.2x2 mm Glass/Ceramic ball from 1.0 mm	
Belt speed adjustable in the range	0-60 m/min	10-120 m/min
Type of rejector	Air separator composed of 32 independent channel repeller nozzles. Possibility to divide into 4/2/1 channels.	Air separator consisting of 48 independent channel repeller nozzles. Possibility to divide into 4/2/1 channels.
Operating system	Windows 7	
Connection	LAN port, USB port	
Product management	Automatic recording of the parameters of the tested product	
Image management	Automatic image saving and analysis	
Display	17 "touch screen	
Cooling	Industrial air conditioner	
Radiation protection	Protective tunnel and security system	
External radiation	< 1 μ Su/h	
Working temperature	from -10°C to 40 °C	
Working humidity	30-90% non-condensing water vapor	
Supply voltage	230 VAC	
Power consumption	1500 W	
Tightness class	IP66	
Air pressure	0,8 Mpa	
Main material	Stainless steel glass blasting	