



**ELEKTRONIK SYSTEM**

*Piotr Cieślinski*

ul. Ustronna 14  
89-606 Charzykowy



**FROST**

+48 608 34 34 34  
elektron@metaldetektor.pl

## ELEKTRON-SXRF-6080 & SOP

### ► X-RAY SCANNER & COLOUR OPTICAL SORTER

This is the most modern system in the world for detecting anomalies in terms of different colour and shape not matching the product under examination and other foreign bodies.

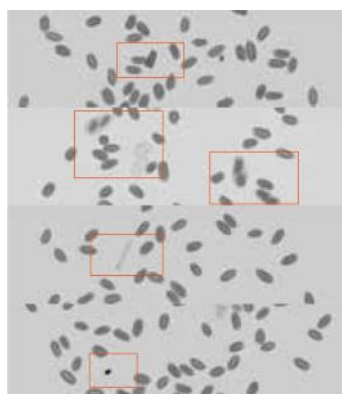
- The combination of the X-Ray scanner and colour sorter provides the highest possible detection range in the world.

This combination we are confident that our product will be almost 100 per cent cleaned. At last, we have certainty that any foreign body will be detected such as a piece of wood, a piece of rubber glove, leaves, insects, a piece of snail shell, shells, seeds, slime etc.

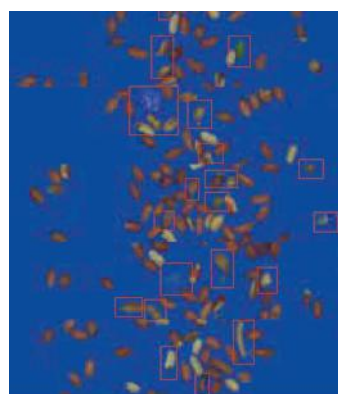
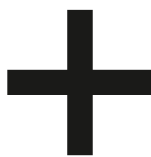
- Possibility to choose an X-ray scanner with a single beam of ionising radiation or with dual energy.
- Effectively detects foreign bodies in raw materials, but also identifies defects, e.g. damaged skin, mould, etc.



Model	<b>ELEKTRON-SXRF-6080 &amp; SOP</b>	
Specification	Standard 6080	Dual Energy 6080
Maximum height of the test product	300 mm	
Maximum width of the test product	600 mm	
X-Ray lamp	MAX. 80 kV, 350W	
Color vision sensor	RGB CCD camera	
The smallest possible detectable testers	St/st ball from 0.3 mm, wire from 0.2x2 mm Glass/Ceramics ball from 1.0 mm	
The belt speed is adjustable	10-90m/min	
Recoil mode	Air separator composed of 48 or 72 independent repeller nozzles or flap	
Communication ports	LAN port, USB port	
Product management	Automatic recording of parameters of the tested product	
Image management	Automatic image recording and analysis	
Display	17" touch screen	
Cooling	Industrial air conditioner	
External radiation	< 1μSv/h	
Working temperature	from -10°C to 40°C	
Operating humidity	30-90% non-condensed water vapor	
Supply voltage	220VAC	
Power consumption	1500 W	
Tightness class	IP66	
Air pressure	0.8MPa	
Housing material	Glass-blasted stainless steel	



SCANNER X- RAY



COLOR SORTER

EXAMPLES OF DETECTED CONTAMINATION AND DAMAGE



Ideal for dry bulk products such as peanuts, sunflower seeds, pumpkin seeds, but also for certain deep-frozen vegetables and fruits with a dry, free-flowing and non-caking consistency. The X-Ray scanner detects contaminants such as metal, glass, stone, ceramics, while, in combination with the colour sorter the device is able to detect foreign bodies in the form of paper, a piece of snail shell, leaves or shells, but it is also the best solution if you are looking for a device that detects skin damage, mould, rot or stains.



## RESULTS OF PRODUCT SORTING CARRIED OUT

PRODUCT REJECTED



PRODUCT AFTER SORTING





## RESULTS OF PRODUCT SORTING CARRIED OUT

PRODUCT REJECTED



PRODUCT AFTER SORTING

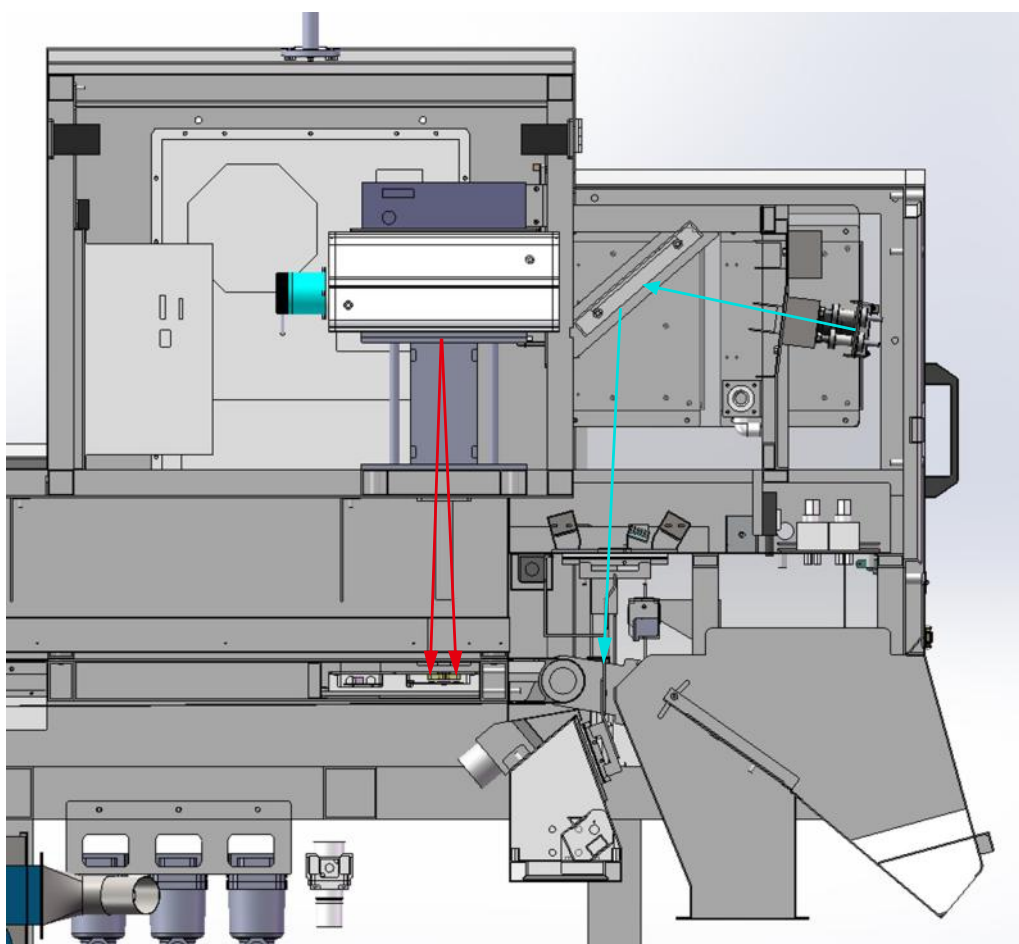






FROST





### ARTIFICIAL INTELLIGENCE

The X-Ray scanner can be equipped with the support of artificial intelligence, which analyses the comparison data much more accurately than a human with tremendous computational speed. The AI robot learns to recognise and eliminate foreign bodies, errors, damage, deficiencies much more accurately than scanners from competitors.

### ADDITIONAL ADVANTAGES WHEN CHOOSING A DUAL ENERGY SCANNER

- The dual energy detector uses 8 rows of TDI technology to ensure the product stays examined for atomic number by ultra-high-resolution imaging and foreign bodies high and low density will be detected.
- Thanks to the use of dual-energy scanner power, 27-layer genetic calculations are created, which carefully analyze the properties of foreign bodies, metal foreign bodies, glass, stone, hard bones, etc., to professionally detect material differentiation

### SYSTEM „FROST”

The X-Ray scanner can be equipped with an unprecedented system "FROST" with built-in intelligent heating system and thermostat, inside the panel which protects the internal electronics from moisture and cold. It is the only protection against rapid temperature changes during washing and protects against inward absorption of moisture (e.g. a cold machine being washed with hot water).



## SYSTEM FUNCTIONS

- Possibility to enlarge the image up to 8 times.
- Ultra high linear scanning speed.
- Product shape selection system.
- Identification of product defects, i.e. damaged leather, stains, mold, soil, etc.
- Detection of defective products with damage (deformed product, crumpled can, no product or defective product).
- 2 password-protected system levels.
- Automatic diagnostics and safety control system (detection of open doors) i nspection door in the device and immediately stop the device and turn it off X-Ray lamp radiation).

## POSSIBLE CONFIGURATIONS

- InGaAs infrared camera,
- Selection of conveyor belt material,
- Choice of languages,
- Possibility to add a messenger „Tcp-ip /Modbus”.

## MAIN FEATURES

- Effectively detects low-density foreign bodies, such as foil, leaves, paper, etc.
- Touch screen allows easy operation and management of functions (manual option possible changing settings).
- High level of detection and operational stability when scanning incoming products irregularly and even drifting.
- Detection of glass in glass (bottles, jars) and metals in metal packaging (cans).
- Smooth management of each detection zone, improving the level and quality of scanning.
- Full-range, multi-layer product control system.
- Intuitive and very simple operation of the device.

## TYPE OF SEPARATOR

Depending on your needs, the x-Ray scanner can be equipped with an automatic separator:  
**ASG(air shotgun)** **flap**

