**ELEKTRONIK SYSTEM**

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## I LAMP X-RAY SCANNER ELEKTRON-ASG-60/120

► Scanner particularly dedicated to the examination of all dry bulk products (coffee, herbs, cereal grains, salt, sugar, nuts, seeds, nuts, etc.). Can be adapted to the detection of fresh fruit and vegetables.

► Very easy and intuitive to use.

► Using artificial intelligence technology the X-Ray scanner is almost maintenance-free.

► **ASG** (air shotgun)- separator with multiple air nozzles that precisely removes contaminants along with a small amount of product to be examined.

► Easy and quick cleaning design.

► Highest level of safety, complying with European CE standards as well as US FDA, optionally UL/CSA.
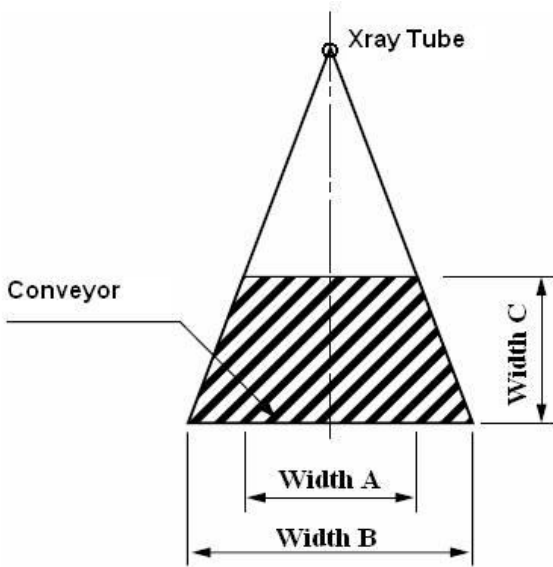
## ARTIFICIAL INTELLIGENCE- OPTIONAL

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 competitor scanners.

| Model | ELEKTRON-SXRF | |
|---|---|---|
| Specification | 4080, 5080, 6080 | |
| Maximum height of the test product | 220 mm, 250mm, 300mm | |
| Maximum width of the test product | 400 mm, 500mm, 600mm | |
| X-Ray lamp | MAX. 80 kV, 350W | |
| 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 | 0-60 m/min | 10-120 m/min |
| Recoil mode | Air separator composed of 32 independent channel repeller nozzles. Possibility to divide into 4/2/1 channels. | Air separator composed of 48 independent channel repeller nozzles. Possibility to divide into 4/2/1 channels. |
| Connection | port LAN, port USB | |
| 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 | |
| Radiation protection | Protective tunnel and security system | |
| External radiation | < 1µSu/h | |
| Working temperature | od -10˚C do 40 ˚C | |
| Operating humidity | 30-90% non-condensed water vapor | |
| Supply voltage | 230 VAC | |
| Tightness class | IP66 | |
| Air pressure | 0,8 Mpa | |
| Housing material | Glass-blasted stainless steel | |

# SELECTING AN X-RAY SCANNER



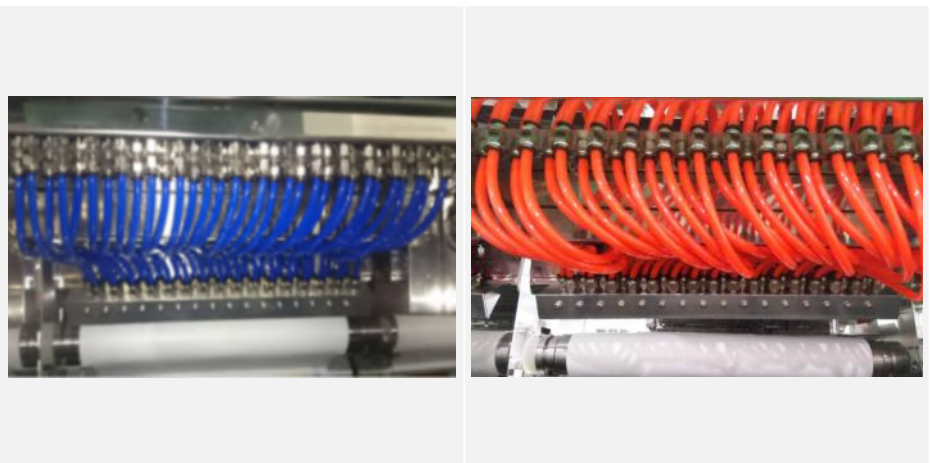| Model | SXRF-4080 | SXRF-5080 | SXRF-6080 |
|---|---|---|---|
| Product height(A) | Product width (B) | | |
| 0 mm | 400 mm | 500 mm | 600 mm |
| 10 mm | 390 mm | 489 mm | 589 mm |
| 20 mm | 380 mm | 477 mm | 576 mm |
| 30 mm | 371 mm | 466 mm | 564 mm |
| 40 mm | 361 mm | 455 mm | 552 mm |
| 50 mm | 351 mm | 443 mm | 540 mm |
| 60 mm | 341 mm | 432 mm | 528 mm |
| 70 mm | 331 mm | 420 mm | 515 mm |
| 80 mm | 322 mm | 409 mm | 503 mm |
| 90 mm | 312 mm | 398 mm | 490 mm |
| 100 mm | 302 mm | 386 mm | 478 mm |
| 110 mm | 292 mm | 375 mm | 466 mm |
| 120 mm | 282 mm | 363 mm | 454 mm |
| 130 mm | 272 mm | 352 mm | 441 mm |
| 140 mm | 263 mm | 340 mm | 429 mm |
| 150 mm | 253 mm | 329 mm | 417 mm |
| 160 mm | 244 mm | 218 mm | 405 mm |
| 170 mm | 234 mm | 307 mm | 393 mm |
| 180 mm | 224 mm | 295 mm | 380 mm |
| 190 mm | 214 mm | 284 mm | 368 mm |
| 200 mm | 204 mm | 272 mm | 356 mm |
| 210 mm | 194 mm | 261 mm | 344 mm |
| 220 mm | 185 mm | 250 mm | 331 mm |
| 230 mm | - | 239 mm | 319 mm |
| 240 mm | - | 227 mm | 307 mm |
| 250 mm | - | 216 mm | 295 mm |
| 260 mm | - | - | 282 mm |
| 280 mm | - | - | 258 mm |
| 300 mm | - | - | 233 mm |

Type and type of X-Ray scanner we select according to the requirements client. The product dimension must be inscribed in the detection cone accordingly with table.

# ASG AIR NOZZLE SYSTEM

**ASG (air shotgun) -** separator with air nozzles

The X-ray scanner divides the conveyor belt for 8 independent channels with 34 or 48 air nozzles for precise rejection of a foreign body containing a small amount of product.

## MAIN FEATURES

- Very high level of detection and unparalleled operating stability when scanning bulk fed products with irregular shapes and alignment.
- Remote 24-hour service support regardless of location.
- Touchscreen for easy operation and management of functions (possibility to fine-tune manual parameter settings).
- Detection of all metals, stones, glass, ceramics, rubber, hard plastic.
- Conveyor speed - 10-120m/min, adjustable according to product specifics.
- Smooth management of each detection zone increasing the level and quality of scanning.
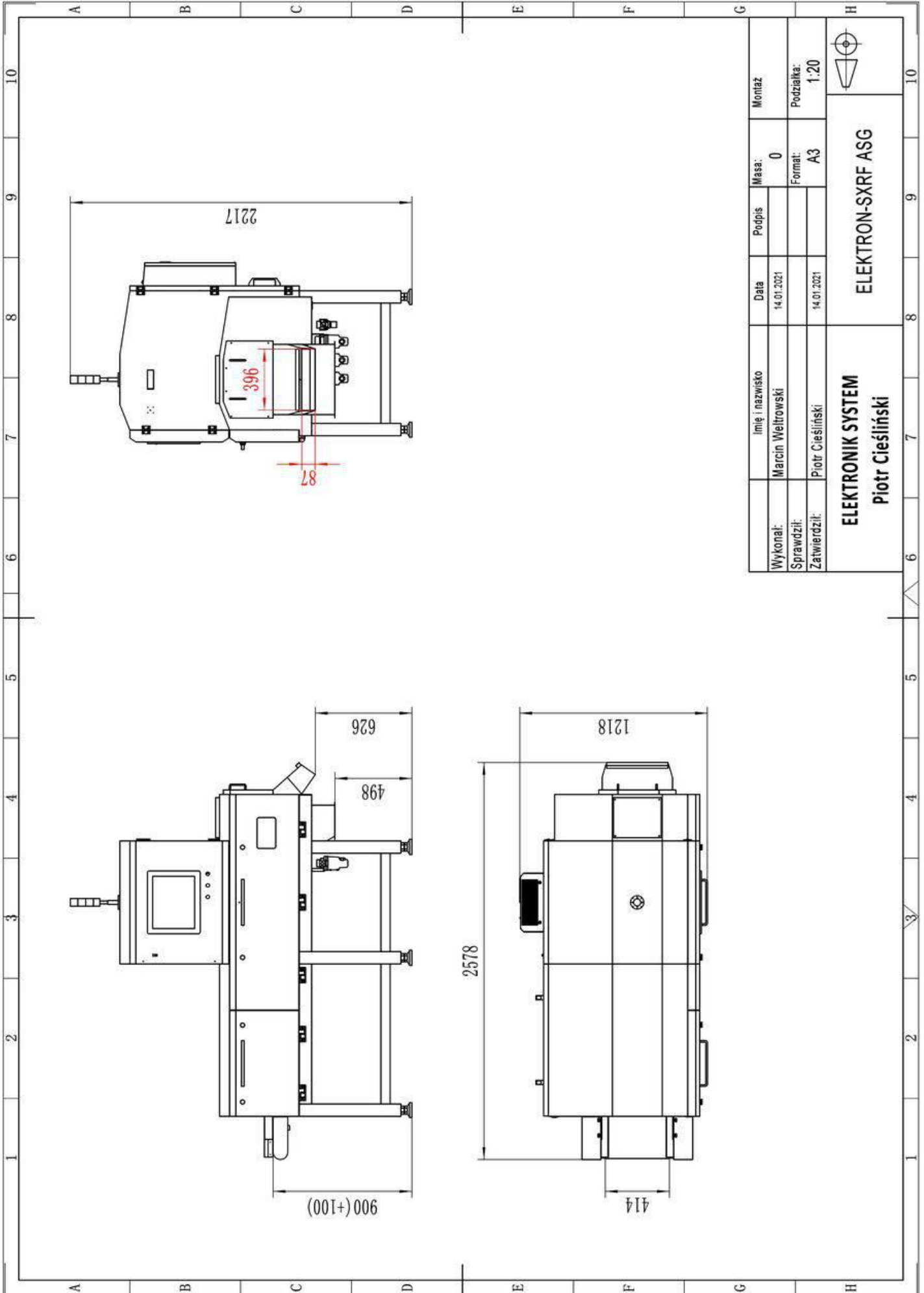- Intuitive and very simple operation of the machine.

## SYSTEM FUNCTIONS

- 2 password-protected access levels.
- The operator can additionally adjust the settings.
- Automatic product self-learning system.
- Automatic diagnostics and safety control system (detection of open doors, inspection door in the device and immediately stop the device and turn it off X-Ray lamp radiation).

## „FROST" SYSTEM

In the low temperature zone, the X-Ray scanner can be equipped with an unprecedented "FROST" system- a system for controlling the temperature and humidity inside the enclosures of the control systems. A system that protects the electronics against humidity and cold and abrupt temperature changes during cleaning. It prevents the absorption of moisture inside (e.g. a cold machine washed with hot water).

## LIST OF COMPONENTS

| FUNCTION | NAME | PRODUCER |
|---|---|---|
| X-Ray source | X-Ray generator | VJ USA |
| X-Ray receiver | X-Ray detector | DT FINLANDIA |
| Device management | 17" touch monitor | ADVANTECH |
| Data processing | Industrial computer | ADVANTECH |
| Temperature and wetness control | Air conditioner | RITTAL |
| Conveyor belt drive | Engine wiht gear | ORIENTAL MOTOR |
| Speed regulation | Engine controller | ORIENTAL MOTOR |
| Electric protection | Miniature circuit breakers | SCHNEIDER ELECTRIC /ABB |
| Connection between devices | Military connectors | PLT |
| Safety management | Limit switches | OMRON |
| Automation management | PLC driver | SCHNEIDER ELECTRIC |
| Warning information | Optical-acoustic signaller | WERMA |

2217

396

87

626

498

1218

2578

900(+100)

414

| | Imię i nazwisko | Data | Podpis | | Montaż | |
|---|---|---|---|---|---|---|
| Wykonał: | Marcin Weltrowski | 14.01.2021 | | | Masa: | 0 |
| Sprawdził: | | | | | | |
| Zatwierdził: | Piotr Cieśliński | 14.01.2021 | | | Format: A3 | Podziałka: 1:20 |

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**ELEKTRON-SXRF ASG**