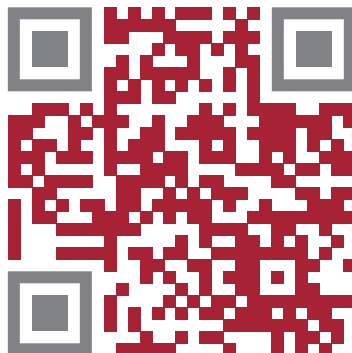# Redyron

Ingredients. Equipment. Expertise.

Metal Detection • X-Ray • Weighing

REDYRON Inspection Portfolio

Food Safety Starts with Reliable Detection & Control

Ensuring the safety and integrity of food products is a core requirement of modern quality management systems. International standards such as **HACCP, GMP,** and the **Codex General Principles of Food Hygiene** all require effective measures to prevent physical contamination and protect consumers.

HACCP Requirements

Appendix 1 – HACCP Principles: Section 1 – Hazard Analysis
• *Hazard Identification* includes microbiological, chemical, and physical hazards.
• For *physical hazards*, recognized **control measures** include the use of **magnets**, **metal detectors**, **X-ray** systems, and other inspection technologies to prevent foreign-object contamination.

U.S. GMP Regulations

Part E – Production & Processing Controls, Section III.80 states:
• "Effective measures shall be taken to prevent the inclusion of metal or other foreign matter in food."
• This requirement may be met using sieves, **magnets**, **electronic metal detectors**, **X-ray detectors**, or other validated equipment.

Codex General Principles of Food Hygiene (CAC/RCP 1-1999, Rev.)

Section **5.2.5 – Physical and Chemical Contamination** requires:
• Systems to prevent contamination from **metal fragments**, **glass**, **dust**, and other foreign materials.
• The use of appropriate **detection devices and scanners** during production and processing.

REDYRON: A French Company Dedicated to Global Food Safety

REDYRON is a **French company** specialized in supplying high-performance industrial inspection equipment aligned with international food safety standards. Our solutions include:
• **Metal Detectors** for Fe (iron), SUS (stainless steel), and Cu (non-ferrous metals)
• **X-Ray Foreign Object Detectors**
• **Automated Weighing & Sorting Machines**

Our manufacturing partner and production facility are located in Shanghai, China, enabling us to offer reliable, high-precision equipment at competitive prices — trusted across the food, beverage, and manufacturing sectors.

CL-380 FULLY DIGITAL METAL DETECTOR
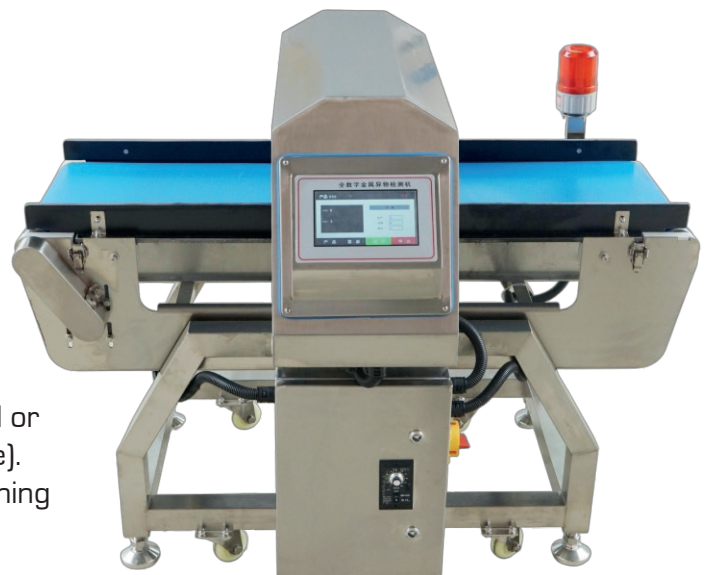
Scope of Application:
Food products, pharmaceutical products, chemical products.

Detectable Items:
1. Non-metallic products (or products packaged in non-metallic bags. Products packaged in aluminium foil or coated film packaging are not suitable for this machine).
2. Capable of inspecting dry products, moisture-containing products, and salt-containing products.

Key Features:
1. Combining DSP with a single-chip microcomputer, it performs data sampling and processing on detection signals. It features a memory function capable of storing detection parameters for 2 0 product types, enabling human-machine interaction.
2. Constructed from mirror-finished stainless steel, the machine surface is hygienic and clean. Employing laser cutting technology, it is manufactured to a high standard.
3. The detection probe and electrical control box feature waterproof treatment, powered by two independent transformers for power supply, offering robust anti-vibration and anti-interference capabilities.
4. The machine can be fitted with a variable-speed motor or a foreign object ejection device, making it suitable for flow line production.
 5. Standard effective inspection window dimensions:
width 230 mm (conveyor belt 200 mm),
330 mm (conveyor belt width 300 mm) in height,
400 mm (conveyor belt width 380 mm).
Height options:
100 mm, 120 mm, 150 mm, 200 mm.

Technical Specifications:

Detection width	Detection height	Detection accuracy	Inspection speed	Voltage	Weight	Power	Dimensions
230–430 mm	100–200 mm	Fe ≥ 0.3–1.0 mm SUS ≥ 1.5–2.5 mm	25m/min (Can be fitted with variable speed motor)	220V/50Hz	120 kg	90W	140 × 1500 × 700 mm

CL-530 FULLY DIGITAL METAL DETECTOR

Scope of Application:
Food products, pharmaceutical products, chemical products.

Detectable Items:
1. Non-metallic products (or products packaged in non-metallic bags. Products packaged in aluminium foil or coated film packaging are not suitable for this machine).
2. Capable of inspecting dry products, moisture-containing products, and salt-containing products.

Key Features:
1. Combining DSP with a single-chip microcomputer, it performs data sampling and processing on detection signals. It features a memory function capable of storing detection parameters for 2 0 product types, enabling human-machine interaction.
2. Constructed from mirror-finished stainless steel, the machine surface is hygienic and clean. Employing laser cutting technology, it is manufactured to a high standard.
3. The detection probe and electrical control box feature waterproof treatment, powered by two independent transformers for power supply, offering robust anti-vibration and anti-interference capabilities.
4. The machine can be fitted with a variable-speed motor or a foreign object ejection device, making it suitable for flow line production.
5. Standard effective inspection window dimensions: width 400mm (conveyor belt 380 mm), 530mm (conveyor belt width 480 mm) in height, Height options: 100 mm, 120 mm, 150 mm, 200 mm, 250mm, 300mm, 400mm, 500mm, 600mm

Technical Specifications:

Detection width	Detection height	Detection accuracy		Inspection speed	Voltage	Weight	Power	Dimensions
430–530 mm	120–600 mm	Height 100–250 mm Fe ≥ 0.3–0.8 mm SUS ≥ 1.2–2.0 mm		25m/min (Can be fitted with variable speed motor)	220V/50Hz	150 kg	200W	1600 (L) × 750 (W) and above × 650 (H) mm (650 mm from floor to conveyor belt, positioning feet can be raised by 150 mm)
		Height 200–350 mm Fe ≥ 1.0–2.0 mm SUS ≥ 2.0–2.5 mm						
		Height 350–600 mm Can be determined according to customer requirements						

CL-630 FULLY DIGITAL METAL DETECTOR

Suitable for:
Food products, pharmaceutical products, chemical products.

Testing objects:
1. Non-metallic products (or products packaged in non-metallic bags. Products packaged in aluminium foil or coated film are not suitable for this machine.)
2. Capable of detecting dry products, moisture-containing products, and salt-containing products.

Key Features:
1. Combines DSP and single-chip technology for data sampling and processing of detection signals. Features memory functionality to store detection parameters for 20 products, enabling human-machine interaction.
2. Constructed from mirror-finished stainless steel for a hygienic surface. Manufactured with precision using laser cutting technology.
3. The detection probe and electrical control box undergo waterproof treatment. Powered by two independent transformers, it offers robust resistance to vibration and interference.
4. The machine can be configured with variable-speed motors or foreign object ejection devices, making it suitable for flow-line production.
5. Standard effective detection window:
width 300 mm (conveyor belt 280 mm),
width 400 mm (conveyor belt width 380 mm).
width 500 mm (conveyor belt width 480 mm).
width 600 mm (conveyor belt width 560 mm).
Our company manufactures ultra-wide metal detectors with inspection widths up to 2800mm.
Height options:
100 mm, 120 mm, 150 mm,
200 mm, 250 mm, 300 mm,
400 mm, 500 mm, 600 mm

Technical Specifications:

Detection width	Detection height	Detection accuracy		Inspection speed	Voltage	Weight	Power	Dimensions
300–830 mm	120–600 mm	Height 100–250 mm Fe ≥ 0.3–0.8 mm SUS ≥ 2.5–3.5 mm		25m/min (Can be fitted with variable speed motor)	220V/50Hz	180 kg	90-1500W	1600 (L) × 750 (W) and above × 650 (H) mm (650 mm from floor to conveyor belt, positioning feet can be raised by 150 mm)
		Height 200–350 mm Fe ≥ 1.0–2.0 mm SUS ≥ 3.5–5.0 mm						
		Height 350–600 mm Can be determined according to customer requirements						

Note: Customisation available according to specific user requirements.

CL-L WIDE FULLY DIGITAL METAL DETECTOR

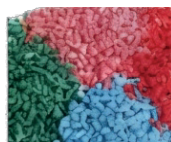## CL-H HIGH-TYPE FULLY DIGITAL METAL DETECTOR

CL-S SLANT-TYPE FULLY DIGITAL METAL DETECTOR

Specific dimensions and detection accuracy of the above products are customizable to customer requirements

CL-30 TO CL-150 PIPELINE-TYPE HIGH-PRECISION METAL DETECTOR

Channel diameter	30 mm	50 mm	80 mm	100 mm	150 mm
Detection accuracy Fe	0.5 mm	0.5 mm	0.8 mm	1.0 mm	1.5 mm
S US	1.0 mm	1.2 mm	1.5 mm	2.0 mm	3.0 mm
Pipe flow rate (kg/h)	300 - 400	700 - 800	1000 - 1500	2000 - 2500	5000
Current	220 V / 50 - 60 Hz				
Operating environment	-10℃ to +50℃				

CL-380 FULLY DIGITAL METAL DETECTOR & WEIGHT SORTING INTEGRATED MACHINE

Test load	≤ 15 kg
Weighing Accuracy	±0.5 g to 5 g adjustable
Detection Accuracy	FeΦ0.5 - 1.5 mm SUSΦ1.5 - 2.5 mm
Operating Speed	10 to 60 m/min adjustable
Weighing Table	Length 600 mm x Width 400 mm
Material to be inspected	≤ Length 450 mm x Width 400 mm
Overall dimensions	Length 2200 mm x Width 880 mm x Height 1250 mm

Test weight	≤ 15 kg
Detection Accuracy	±0.5 g to 5 g adjustable
Operating Speed	10 to 60 m/min adjustable
Weigh platform	Length 400 - 650 mm x Width 200 - 400 mm
Material to be inspected	≤ Length 450 mm x Width 400 mm
External dimensions	Length 1900 mm x Width 800 mm x Height 1250 mm

CL-380 FULLY DIGITAL HIGH-PRECISION WEIGHT SORTING SCALE

CL-400 X-RAY FULL DETECTOR

X-ray foreign object detection equipment can automatically detect whether products contain foreign objects, including metallic and non-metallic foreign objects (glass, ceramics, stone fragments, plastic, etc.), and signals the downstream rejection device to automatically remove contaminated products from the production line. X-ray foreign object detection equipment is suitable for detecting metallic and non-metallic foreign objects, defects (damage), etc., in the food, chemical, and pharmaceutical industries, and is unaffected by temperature and humidity fluctuations or salt content.

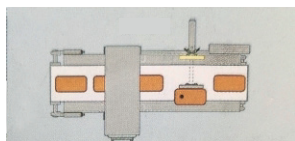| Model	Model 400		
Machine dimensions	L1220 x W900 x H1710	L1220 x W900 x H1810	L1220 x W900 x H1890
Channel dimensions	400 x 160 mm	400 x 220 mm	400 x 250 mm
Conveyor belt width	400	400	400
Belt clearance height	718+80mm		
Detection accuracy	Metal: Φ0.3mm, Stone: Φ0.5mm, Glass: Φ1.0mm		
Conveyor belt speed	10 - 60 m/min		
X-Ray ouput	80 - 100kV, 100 - 350W		
Detector type	Linear scan		
Pixel size	0.4/0.2/0.1		
Display	17/21.5 Touchscreen (customisable)		
Operation method	Touchscreen operation		
Air pressure	/		
Electrical source	AC 220V, 100W		
Environmental requirements	Temperature: -10°C to 40°C		

CL-580 X-RAY FULL DETECTOR

X-ray foreign object detection equipment can automatically detect whether products contain foreign objects, including metallic and non-metallic foreign objects (glass, ceramics, stone fragments, dust particles, hard rubber, hard plastics, etc.), and signals the downstream rejection device to automatically remove contaminated products from the production line. X ray foreign object detection equipment is suitable for detecting metallic and non-metallic foreign objects, defects (damage), etc., in the food, chemical, and pharmaceutical industries, and is unaffected by temperature and humidity fluctuations or salt content.
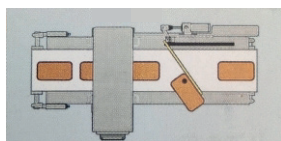
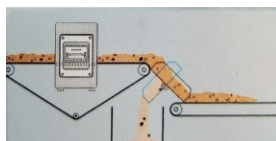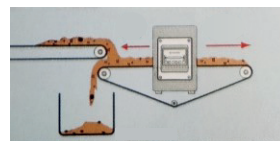| Model	Model 600	
Machine dimensions	L1220 x W1050 x H1890	L1220 x W1150 x H1990
Channel dimensions	500 x 300 mm	600 x 300 mm
Conveyor belt width	500	600
Belt clearance height	718+80mm	
Detection accuracy	Metal: Φ0.4mm, Stone: Φ0.6mm, Glass: Φ1.0mm	
Conveyor belt speed	10 - 60 m/min	
X-Ray ouput	80 - 100kV, 100 - 350W	
Detector type	Linear scan	
Pixel size	0.4/0.2/0.1	
Display	17/21.5 Touchscreen (customisable)	
Operation method	Touchscreen operation	
Air pressure	/	
Electrical source	AC 220V, 100W	
Environmental requirements	Temperature: -10°C to 40°C / Humidity: 30% to 85% (non-condensing)	

POST-DETECTION REMOVAL DEVICES (SUITABLE FOR ANY MODEL)
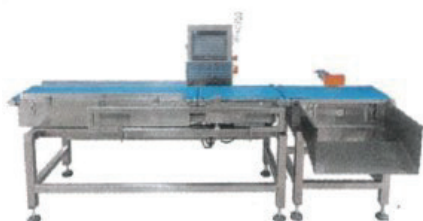

AIR CHASER

SWING ARM

FLIP PLATE EJECTION

REVERSE BELT

DROP-TYPE REMOVAL

LEFT-RIGHT SWING ARM REMOVAL

PUSH ROD-TYPE REMOVAL

AIR BLOW-TYPE REMOVAL

SWING ARM-TYPE REMOVAL

@ cguyondet@redyron.com

🌐 www.redyron.com

📱 +33 (0)647106765

📍 Redyron SAS
188, Rue du Vieux Bourg
01170 Segny (France)

Redyron
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