

# X-RAY SORTER MODEL XRT

The SGM XRT Model is a cutting-edge sorting system that utilizes advanced X-Ray Transmission (XRT) technology to separate materials based on their density and atomic composition. Equipped with dual-energy scanning capabilities, it offers **exceptional accuracy in distinguishing between heavy and light metals**, as well as between plastics with similar visual characteristics. With high-efficiency detection and intelligent automation, the XRT Model ensures maximum recovery of valuable resources, making it an ideal solution for complex and high-volume recycling operations.

## HOW IT WORKS

The process begins with the even distribution of material onto a conveyor belt that passes through the X-ray scanning zone. As the material moves forward, a high-energy X-ray source penetrates it, while dual-energy sensors (LDA receivers) capture the residual radiation. The system analyzes the absorption data in real time to determine material density and composition, enabling precise classification. Once the materials are

identified, the system's software triggers a pneumatic ejection mechanism that accurately separates each item into designated output streams. The entire operation is fully automated, with belt speed and ejection synchronized to maintain high throughput and minimal material loss.

To enhance flexibility and performance, the SGM XRT Model can be tailored with a range of customizable features:

- Air compressor integration for efficient pneumatic sorting.
- Adjustable belt speed (2-2.8 m/s) to adapt to various material flows.
- Multiple X-ray energy settings for fine-tuned sorting accuracy.
- High-capacity models designed for different throughput requirements.



## TYPICAL APPLICATIONS

- Automotive Shredder Residue (ASR)
- Electronic scrap (WEEE)
- Upgrade of aluminum scrap

MODEL	VALVES	SOURCES	BELT WIDTH	BELT SPEED	CAPACITY*	LENGTH	WIDTH	HEIGHT	WEIGHT
XRT 24-R	64	1	610 mm 24"	2-2.8 m/s 5-8 ft/sec	2 t/h	6460 mm 254"	1690 mm 66"	2555 mm 100"	5,380 Kg 11,860 lbs
XRT 48-R	128	1	1320 mm 52"	2-2.8 m/s 5-8 ft/sec	5 t/h	6460 mm 254"	2305 mm 90"	2555 mm 100"	6,640 Kg 14,638 lbs
XRT 72-R	192	1	2000 mm 79"	2-2.8 m/s 5-8 ft/sec	8 t/h	6460 mm 254"	2920 mm 115"	2703 mm 106"	9,500 Kg 20,943 lbs
XRT 96-R	256	2	2286 mm 90"	2-2.8 m/s 5-8 ft/sec	10 t/h	6460 mm 254"	3540 mm 136"	2703 mm 106"	14,000 Kg 30,864 lbs

(\* ) Depending on application, material specific weight and metal content in material