

# X-RAY SORTER MODEL XRF-T

The SGM XRF-T is the most advanced and cost-effective solution for **sorting both light and heavy metals in a single system**. By combining X-Ray Fluorescence (XRF) and X-Ray Transmission (XRT) technologies, it eliminates the need for separate machines, significantly reducing investment and operational costs. This integrated approach allows operators to achieve outstanding recovery rates, over 90%, with purity levels exceeding 98%, making it the ideal solution for modern recycling plants focused on performance and profitability.

## HOW IT WORKS

Unlike traditional sorting systems that rely solely on visual recognition or density, the SGM XRF-T adds a new layer of precision by analyzing the internal and external properties of each material.

The process begins with XRT analysis, which measures the density and thickness of incoming materials, effectively identifying metals regardless of shape or coating. Then, XRF technology steps in to analyze the chemical composition, distinguishing between different alloys and contaminants,

such as separating brass from bronze or stainless steel grades like 304 and 316.

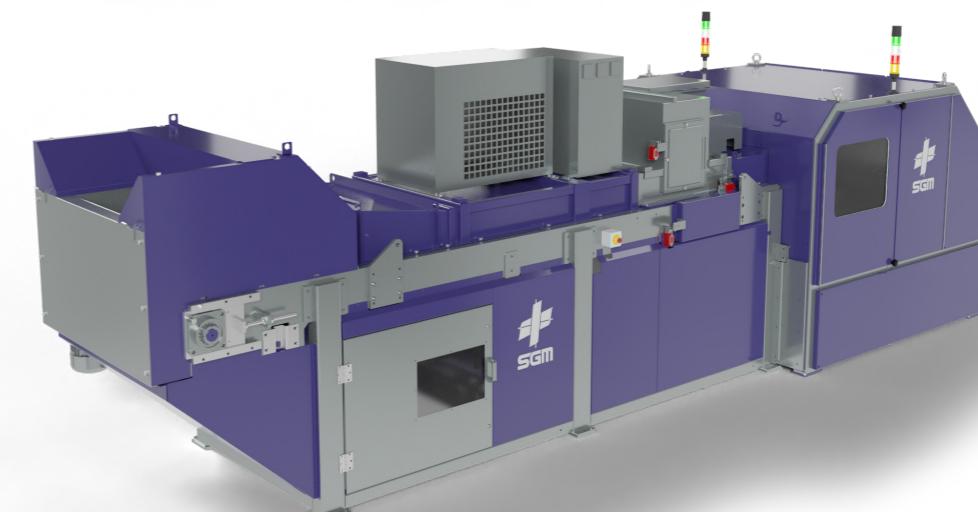
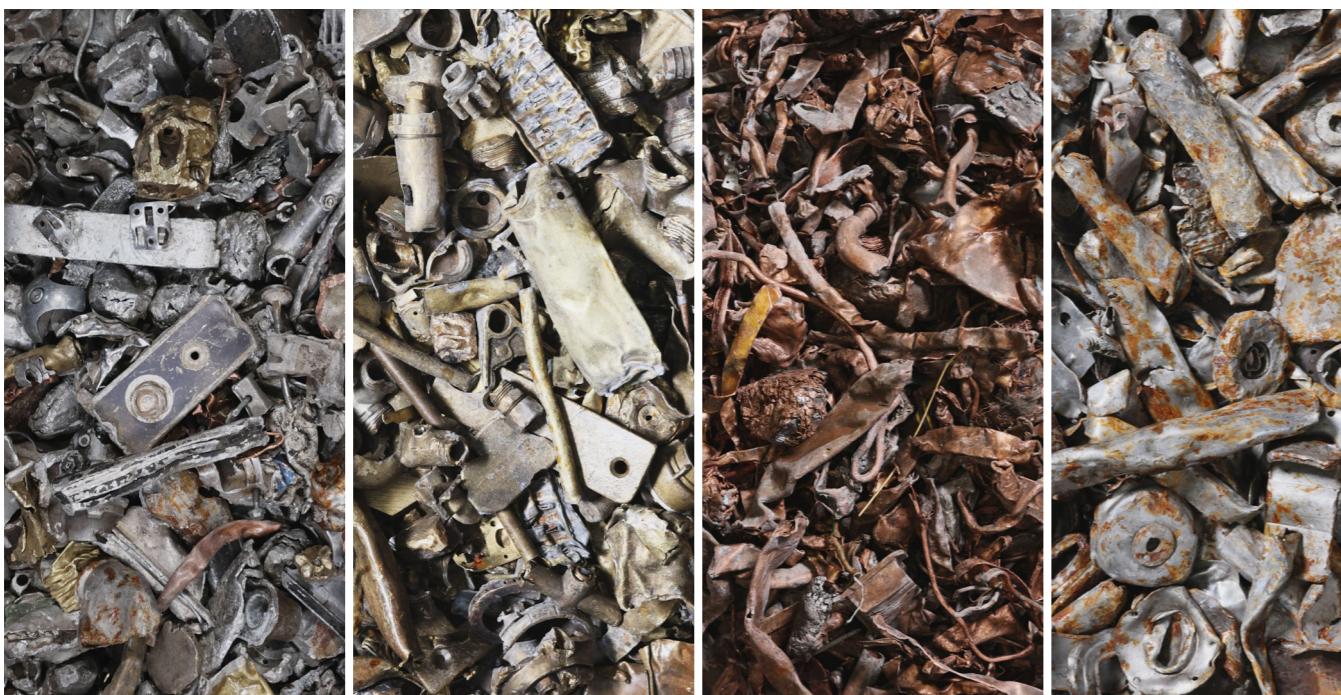
What makes the XRF-T truly unique is its single X-ray source, working with both XRT and XRF sensors in perfect synchronization. This dual-layer process enables the system to first remove light metals, like aluminum, using density-based XRT separation. It then applies precise XRF analysis to sort the heavy metals (such as copper, lead, zinc, and chrome) ensuring maximum sorting accuracy, even when materials are coated, dusty, or fragmented.

Operators benefit from exclusive features such as aluminum breakage detection, which prevents small aluminum fragments from being mistakenly rejected as non-metallic, and a high-power X-ray source that maintains precision even when dealing with painted or dirty surfaces.

By combining two powerful technologies in one compact solution, the SGM XRF-T helps operators maximize metal recovery while keeping costs under control.



Scan for more details



## TYPICAL APPLICATIONS

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

| MODEL    | VALVES | SOURCES | ACTIVE WIDTH  | BELT SPEED         | CAPACITY* |
|----------|--------|---------|---------------|--------------------|-----------|
| XRF-T 32 | 92     | 1       | 812 mm - 32"  | 2,5 m/s - 8 ft/sec | 2-4 t/h   |
| XRF-T 64 | 184    | 2       | 1625 mm - 64" | 2,5 m/s - 8 ft/sec | 4-8 t/h   |

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