

“THE FIRST MACHINE IS JUST A BEGINNING!”

MILESTONES of REDWAVE XRF

- 2007 Development of REDWAVE XRF as a band system
- 2008 First sold REDWAVE XRF in the glass sector
- 2010 First sorting tests in the field of metal scrap
- 2011 Development REDWAVE XRF / C Sliding system for ore sorting
- 2013 Development of the new sensor
- 2014 First sold REDWAVE XRF / C slide system for metal sorting
- 2015 Commissioning of the ZORBA sorting plant for 25t / h
- 2016 Implementation of the „REDWAVE 3-way sorting“
- 2016 Sale of the 50th REDWAVE XRF



This is the conclusion drawn by one of our satisfied Swedish customers in metal recycling. Since the introduction of the REDWAVE XRF in the glass sector, around ten years ago, further development of XRF (X-ray fluorescence) sorting technology has also shown itself to be profitable in the metals sector: The technology has become very well established in recent years in the field of sorting for the most varied metals.

In contrast to near-infrared and camera technology, our REDWAVE XRF/C enables the detection of the elemental composition. The combination of XRF and camera technology in the new, innovative “free-fall design” opens up absolutely new opportunities in sorting technology and is a significant competitive advantage compared to other sorting technologies available on the market. Currently, we are the only supplier of this novel technology worldwide.

The combination of camera and XRF sensors not only provides the option of qualitative analysis, i.e., identification of the element concerned, it also allows for quantitative analysis, which indicates the proportion or percentage of each element included in the material. This therefore makes it possible, for example, not only to sort copper from brass, or zinc from stainless steel, it also means that alloys can be separated from each other. If, for example, specific grades of stainless steels can be sorted from each other, this re-

sults in an extra added value of currently around € 250 per tonne.

This is generating significant customer interest in the new technology and the resultant sorting options that previously did not exist. Already two years ago, we organised a two day „REDWAVE Metal Day“ event to which many international experts were invited. International interest in this technology was already awakened at that time, due to the various lectures on the theme of metal recycling and demonstrations of the REDWAVE XRF.

In order to give customers the opportunity to be able to test out this technology in actual running operation and with their own materials on site, two rental machines have been manufactured that are constantly in use by customers. The customer is given the opportunity to test the quality of the sorting machine without obligation.

So far, the success of the rental machines stands as their testimony and demonstrates the complete satisfaction of the testing companies, as up till now each one of them has invested in a new REDWAVE XRF/C machine after the rental test phase.

“Over the past twelve months, we have been able to win a large number of orders worth around € 5 million, in the metal sector alone, through the sale of individual REDWAVE XRF/C machines,”

comments Martin Weiss, who is responsible for metal application sales at REDWAVE.

Rising metal prices, confidence in the technology and awareness of the brand, as well as China’s policy ban on imports, are proving to be positive factors for the continuation of this positive development. In the medium and long term, the stated goal is to realise not only the sale of individual machines but also to win projects in the metals plant engineering sector.

EXTRACT OF CUSTOMER APPLICATIONS:

Aluminium sorting – Italy:

After successful sorting tests in our technical centre, one of our Italian customers decided to purchase a REDWAVE XRF/C with a sorting width of 1.4 m. By using the sorting machine, the sorting quality can be significantly improved in the future and costs for manual sorting can be saved. Furthermore, the use of XRF technology opens up a variety of new, profitable sorting options.

Heavy metal sorting – USA:

A well-known American metal recycler decided within a short time to buy a REDWAVE XRF for the sorting of heavy metals from separated heavy media. The heavy metals are separated in several steps into the desired pure fractions (e.g., copper, brass, bronze, zinc, stainless steel, etc.) and can thus be used as a high-quality secondary raw material in the foundry industry.

Stainless Steel sorting – Belgium:

Following a three-month trial with one of our rental machines, our customer Galloo decided to purchase a REDWAVE 1370 XRF/C. In addition, in the course of the test phase, opportunities for further applications emerged, opening up new markets for the customer.

Copper sorting – USA:

Following a two-month lease period, the SDI La Farga company also decided to invest in a REDWAVE XRF/C for the sorting of

copper scrap (Birch-Cliff). With the aid of the sorting machine, contaminated copper scrap is inexpensively upgraded. By using the sorting machine, it is possible to buy low-price, low-grade copper scrap and to obtain high-quality copper scrap, suitable for foundry melting, through the XRF sorting process.

Combustion scrap - Italy:

In addition to the applications mentioned above, the REDWAVE XRF/C is also used for the sorting of combustion residues. Among other things, a REDWAVE XRF/C for this application has been in operation at RMB since last year. In addition to separation of the individual non-ferrous metals, the sorting of gold and silver in particular should also be mentioned here.

Heavy metals - Sweden:

In the past, Stena Recycling sent heavy metals to China, where they were sorted by hand. In order to obtain a higher grade quality from stainless steel, various manual processes were carried out. With the REDWAVE XRF/C technology, this is now no longer necessary, which in-turn generates significantly higher profits. Heavy metals can be separated directly into sorted grades. This is more profitable, quality assurance is better and transportation costs to China are eliminated.



As Sverker Rosdahl, process and quality manager at Stena Recycling, comments: “The REDWAVE XRF/C sorter is great to secure the quality of our products. We are most likely to continue to invest in more of the very latest technology. For us, the first machine is just a beginning!”