CASE
STUDY

R.M.B. S.p.A.
SORTING OF VARIOUS
NON-FERROUS METALS AND IBA

REDWAVE

METAL
SORTING

CUSTOMER

R.M.B. S.p.A. opened for business in 1981 as a conventional scrap metal collector and trader in Brescia. Over the years they have increased their processing capabilities as well as their business portfolio. Today they are one of the main multifunctional platforms in Europe for treating and recovering waste with a total overall capacity of up to 620.000 tons per year.

The sorting, selection, separation and recovery of ferrous and non-ferrous metals are the company´s main activities. The latest modern technology together with thirty years of experience have made it possible to achieve the highest recovery standards. One of their main tasks is the recycling of bottom ash and slag from waste-to-energy plants all over Italy

SITUATION AND SOLUTION

At R.M.B. S.p.A., among other materials, hundreds of tons of bottom ash are being recycled every week brought in from waste-to-energy plants all over Italy. Up to now there has not been a technology available that can sort the remaining mixed heavy metals from IBA (Incinerated Bottom Ash) efficiently. Usually this mix of heavy metals mainly containing free copper, free zinc, brass, bronze, lead, stainless steel and a significant amount of precious metals, was pyrometallurgically refined together or exported to Asia. With the XRF-technology (X-ray Fluorescence) it is possible to identify and sort all kinds of heavy metals even when coming from incineration where the surface is not representative of the material itself. After introducing the REDWAVE XRF/C-technology in a first meeting, R.M.B. S.p.A decided to install a Rental Unit to prove the capabilities and get experience with the technology. Soon after they invested in their first REDWAVE XRF/C sorter to sort heavy metals by type.

For about 1 year, R.M.B. S.p.A. used their REDWAVE XRF/C to sort not only heavy metals from IBA but also various other types of heavy metals. Over that time, they gained confidence with the REDWAVE XRF/C and realized the potential and economic advantage. Due to its versatility, XRF-based sorting can be used for many different applications and makes one independent on the fluctuating market and export restrictions and provides a future-proof investment.

R.M.B. S.p.A realized it is the right choice not only for their heavy metals from IBA but also various other heavy metal types such as ZEBRA. They invested in 5 more large REDWAVE XRF/C sorters to sort all their heavy non-ferrous metal types by type.

HIGHLIGHTS

- Largest order of REDWAVE XRF/C single machines in the history of REDWAVE

- Sorting of tens of thousands of tons of heavy non-ferrous metals within total 6 large REDWAVE 1370 XRF/C sorters in operation at the same plant

ZINC

BRASS

COPPER

IBA

STAINLESS STEEL

HEAVY METALS

TECHNICAL DATA

TYPE OF MACHINE	6 x REDWAVE 1370 XRF-SDD/C 2W
INPUT MATERIAL	Various non-ferrous metals from ZORBA or incinerated bottom ash; Sorting of copper, brass, zinc, stainless steel, aluminium, etc.
CAPACITY	Depending on sorting step 2-8 t/h; for one sorting machine
SENSOR SYSTEM	Combination of X-Ray Fluorescence (XRF) and Camera (C)
GRAIN SIZE	10-20mm, 20-50mm, 50-100mm
WORKING WIDTH	1370 mm / 54"