

CASE STUDY

STENA RECYCLING
SORTING OF VARIOUS
NON-FERROUS METALS AND ZURIK



REDWAVE®



METAL
SORTING

CUSTOMER

Stena Recycling has been creating profitable recycling solutions together with its customers for over 75 years. The goal is always to optimize their customers' waste management locally and refine as much material as possible through sorting, processing and efficient logistics. The Stena Nordic Recycling Center is the answer to current and future demands for efficient, environmentally sound and sustainable recycling. The Nordic Recycling Center is Stena's largest investment ever and is one of the most modern facilities of its kind in Europe. The new automated recycling processes are based on proven technology combined with new innovations such as the REDWAVE XRF/C sorting machine.

SITUATION AND SOLUTION

In the past, Stena Recycling sent heavy metals to China, where they were sorted by hand. In order to produce a higher grade, various manual processes were carried out. With the REDWAVE XRF/C technology, this is 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 cost to China eliminated. Stena Recycling was one of the very first companies to test the REDWAVE XRF/C already in 2014 and at the early stages of the development for their planned Nordic Recycling Center. Some time later, one large REDWAVE 1370 XRF/C was commissioned in Halmstad.

The trust in REDWAVE has been honoured with the order of two more large machines after about one year of operation of the first one. The purpose of the 3 REDWAVE XRF/C machines is to further sort ZEBRA (heavy metals) and ZURIK after dense media and ECS. The machines are used in line as a stand-alone, off-line setup, which offers highest flexibility and highest capacities, with the best possible recovery and purity rates.

HIGHLIGHTS

- One of the first companies to test with the REDWAVE XRF/C in 2014 and at the very early stages of the development
- One of the first companies to purchase a REDWAVE XRF/C
- After successful operation of the first REDWAVE XRF/C, two more were ordered



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.

Mr. Sverker Rosdahl, manager at Stena Recycling said in 2018

Soon after Stena Recycling invested in 2 more REDWAVE XRF/C machines for their SNRC in Halmstad.



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TECHNICAL DATA

TYPE OF MACHINE	3 x REDWAVE 1370 XRF-SDD/C 2W
INPUT MATERIAL	ZEBRA (heavy metals) from dense media and ECS ZURIK (stainless steel) from dense media and ECS Sorting of ZEBRA and ZURIK into high purity products of copper, brass, zinc, stainless steel and stainless steel alloys, aluminium, etc.
CAPACITY	Depending on sorting step 5-10 t/h; for one sorting machine
SENSOR SYSTEM	Combination of X-Ray Fluorescence (XRF) and Camera (C)
GRAIN SIZE	20-60mm, 60-120mm
WORKING WIDTH	1370 mm / 54"

