

SHREDDING PLASTIC-METAL COMPOSITES

RDG Recycling Group

“

Material compositions are becoming increasingly complex—pure plastics are now rare. We needed a shredder that could handle plastic-metal composites, and we found it in the UNTHA XR3000C mobil-e. This machine has completely won us over.

”

» MATERIAL

**Plastic pallets with
fittings/metal inclusions**

» SHREDDER

XR3000C mobil-e

» THROUGHPUT

Up to 5 t/h





CUSTOMER

Founded in 2012 and based in Austria, RDG Recycling Group specializes in recycling a wide variety of plastic waste, including industrial scrap, plastic-metal composites, and bulky post-consumer materials. The company produces around 16,000 tons of high-quality plastic granules annually, helping to save an estimated 32,000 tons of CO₂. With this, RDG makes a significant contribution to the circular economy.

APPLICATION

Plastic recycling involves multiple process stages: pre-shredding, sorting, cleaning, and granulation. RDG initially focused on homogeneous industrial plastics, but the material mix has grown increasingly complex over time. Today, the company frequently handles plastic materials with embedded metals, requiring more robust and adaptable technology.

SHREDDING SOLUTION

Plastic-metal composites are no match for the UNTHA XR3000C mobil-e. Its large feed hopper allows flexible loading by forklift or wheel loader. The machine is powered by the UNTHA Eco Power Drive, a high-torque, water-cooled synchronous motor that offers excellent resistance to impurities and high energy efficiency. A load-dependent speed control system ensures optimal torque and consistent shredding performance. The shredder's C-cutting system delivers precise pre-shredding. With a 50 mm screen, 90% of the output is smaller than 40 mm. Depending on the input and desired output size, throughput can reach up to 5 tons per hour. After shredding, a magnetic separator removes metal contaminants before the material moves into downstream processing for conversion into clean, uniform plastic granules. RDG selected the mobile version of the XR3000C, allowing them to relocate the shredder on-site as needed, adding even more flexibility to their recycling operations.

REQUIREMENTS

- » Cutting system resistant to metal contaminants
- » Energy-efficient operation
- » Loading via wheel loader or forklift
- » Multiple screen sizes for different particle outputs
- » Quick-change screen system for operational flexibility



With the XR3000C, we're making a valuable contribution to the circular economy.

— Franz Kobleder
Shareholder and
managing director of
RDG Recycling Group

