

CUSTOMER

ROTH International GmbH

MATERIAL

Scrap tyres

SHREDDER

XR3000C mobil-e

THROUGHPUT

approx. 4.5–7 t/h



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With the UNTHA shredder XR3000C mobil-e, we process scrap tyres in a single-phase process. This highly efficient shredding process and the low-energy UNTHA Eco Power Drive lower our overheads and increase our economic viability. Thanks to the XR, we now achieve the output that used to require two units with just a single one.

- Michael Roth (Managing Director ROTH International GmbH)

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CUSTOMER

ROTH International GmbH was founded in 2013 and has many years of experience when it comes to the full-scale dismantling and recycling of large objects such as wind turbines and photovoltaic plants. In addition, it offers processing of materials such as lithium-ion batteries and scrap tyres as well as GRP and CFP recycling. The company's services include disassembly and dismantling, cutting respectively stripping, recycling and disposal. As a certified specialist disposal firm, ROTH International is synonymous with environmental awareness and sustainability. Depending on demand, the company develops innovative techniques to improve process efficiency and to completely recycle raw materials, either using pyrolysis technology, reintroducing materials into the resource cycle or applying other feedstock and/or energetic recovery processes.

CHALLENGE

One of the main business areas of ROTH International is the use of scrap tyres, from collection to processing all the way to recycling. Approximately 4,000 tonnes of scrap tyres are processed every year, from small

wheelbarrow wheels all the way to supersize construction machinery tyres. When looking for a new shredder, the focus was very much on energy-efficient, speedy processing, with the ultimate goal of cutting the initially two-phase process down to a single phase, thus saving time and energy. Another important criterion was an electric drive, primarily to reduce noise emissions. As the shredded material is prepared for the secondary fuel market and for pyrolysis in a subsequent step, a homogeneous output material was another crucial condition.

SHREDDING SOLUTION

ROTH International opted for the XR3000C mobil-e. Thanks to the energy-efficient UNTHA Eco Power Drive and its reliable shredding performance, this model is particularly cost-effective and economical. The C-cutting system (cutter) shreds scrap tyres in a single-phase process down to a fraction size of around 50 mm. The unit has a throughput of approx. 4.5–7 tonnes per hour, depending on the state of the material and its composition. Using a magnet separator that is installed above the conveyor belt, metal parts are removed

from the material and reintroduced into the resource cycle. The shredded scrap tyres may then be optimally recycled. Despite its performance strength, the noise emissions of the XR3000C mobil-e are remarkably low. The crawler-type undercarriage makes the unit highly flexible, another point in its favour.

PURCHASING DECISION

ROTH International first came across UNTHA shredders at a trade fair. During the consultations that followed, the company's requirements were listed and a suitable shredding solution was found: the XR3000 with a crawler-type undercarriage, an electric drive, C-cutting system and 50 mm perforated screen. ROTH International was able to extensively test the shredder as part of a trial run that lasted several weeks, in real-life working conditions and using a range of different materials and screens. In addition to the innovative technology, high energy efficiency and throughput of the shredder, the company also appreciated the outstanding competence of the UNTHA experts.

