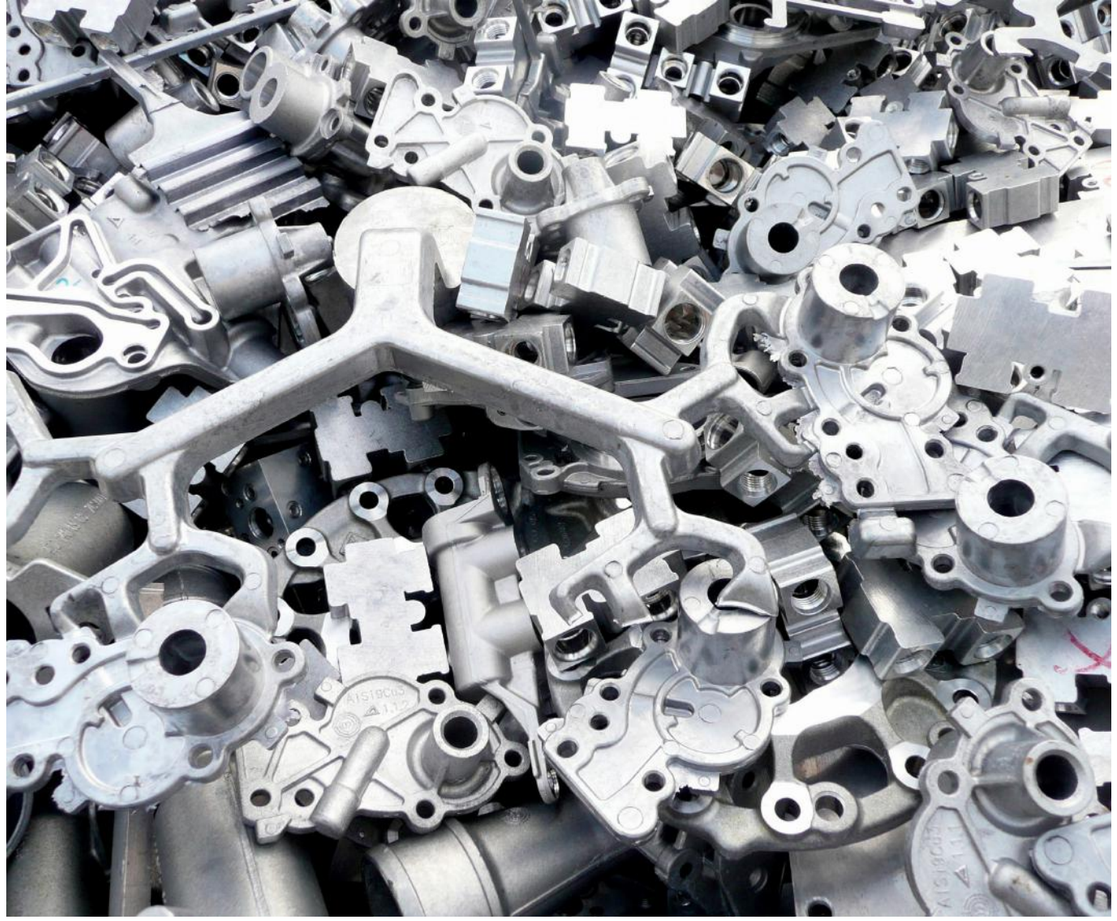
Metal recycling: Shredding of large parts enables cost reductions through prompt remelting

Recycling expert exhibits for the first time at GIFA in Düsseldorf



For the most efficient use of raw materials in the production process, the processing of reject materials and by-products of the foundry and machining industries is increasingly gaining in importance.

The goal is the fastest possible recycling of the metal in the production process, thus avoiding the high costs involved in temporary storage and keeping the space required to a minimum. However, before the cast elements, swarf and metal shavings can be remelted, they must be reduced in size to ensure optimum melting.

The recycling experts at ERDWICH Zerkleinerungs-Systeme GmbH are presenting two solutions from their portfolio at this year's GIFA in Düsseldorf, namely the RM1350/2 twin-shaft ripper and the M600/1 single-shaft shredder, with which this pretreatment can be carried out.

Return of waste material for an efficiently prodution process

Shredding before remelting

In aluminium foundries in particular, large quantities of punching waste, flashings or defective castings are created in the daily production, which are then collected, recycled and melted down again. Especially in view of rising commodity prices, it is in the interest of companies that the return of waste material to the production process takes place as quickly and efficiently as possible. Since many parts are bulky and unwieldy, they must be broken down before remelting.

The machine for the rough stuff

With the coarse shredder RM1350/2, ERDWICH Zerkleinerungs-Systeme GmbH offers the ideal machine for this task. Depending on the application, the length of the cutting gear varies from 1,500 to 2,500 mm. The width is 1,350 mm but can also be customized.

The knives of the cutting gear made of wear-resistant special steel are individually inserted, so that different sequences of types of cut are possible depending on the material to be shredded. The cutting tools are easily accessible and can be exchanged individually if required or be installed so as to be welded directly into place.

VOLUME REDUCTION UP TO 60%

Depending on the field of application, drives of various capacities, from 45 kW to 132 kW, are available. The two motors of the twin-shaft rotor shredder system from ERDWICH are each equipped with an energy-efficient frequency converter so that the shafts can be controlled independently of each other.

In addition to the high-performance electromechanical transmissions, the throughput capacity is enhanced by the possibility of alternately driving the shafts both forward and reverse.

The PLC control with reversing and automatic switch-off protection, specially designed for this purpose, protects the machine against damage caused by overloading or bulky solid parts that have become jammed. Using the RM1350/2, for example, the volume of castings can be reduced by 50 to 60 per cent.

M600/1 for finer material processing

ERDWICH presents the M600/1 for the finer shredding of smaller castings and metal swarf. The single-shaft shredder is particularly suitable for precise shredding in a single process, since the material is gathered using the proven rotor-stator cutting principle, delivering it to the cutting rotor where it is reduced by the stator knife until it has reached the desired size.
This can be discharged through the sieve integrated below it, enabling the precise definition of the grading of the materials thus reduced. Here also, the M600/1 has fully hardened blades, which can be reground several times, ensuring a long service life.
The single shaft shredder is available with two different sizes of cutting gear of 400 x 500 mm or 600 x 500 mm (LxW) and with a drive power of between 5.5 and 9.2 kW. In addition, there are further models with other shaft lengths.

The M600/1 and the cutting gear of the RM1350/2 will be presented by ERDWICH at this year‘s GIFA in Düsseldorf. Managing Director Harald Erdwich and his colleagues are available for initial discussions and specific inquiries in Hall 16, Booth 16E25.

What:	GIFA 2019
When:	Tuesday, 25th to Saturday 29th June 2019
Where:	Messe Düsseldorf, Hall 16, Booth 16E25
Contact person:	Harald Erdwich (Managing Director)
Further information:	www.erdwich.com