

# NEWS

September 2010

Newsletter for customers and employees

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AlphaCutter produces substitute fuels

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Rotary shear provides cooling scrap

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**Versatile:**  
Bio-QZ recycles maize and straw

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## Large appetite

The "small" AlphaCutter L 2200 proves its strength

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## Substitute fuels from Rothenburg

AlphaCutter L 2200 shreds mixed waste

**Substitute fuels with a high calorific value are in demand in the cement industry. The foundation is the correct preparation of high-calorific waste. With the AlphaCutter from MeWa, Edelhäuser Wertstoffe GmbH is able to produce a top-quality, homogeneous material mixture.**

Every year, millions of visitors from across the world are enchanted by the atmosphere of the historic town of Rothenburg ob der Tauber. Tradition and timelessness greet the visitor on every corner of the almost completely preserved mediaeval townscape of this small Bavarian town.

#### Over 100 years of tradition

Meanwhile, the company Edelhäuser Wertstoffe GmbH is able to look back on a tradition spanning over one hundred years. Out of its beginnings as a paper merchant's in Rothenburg, the firm has

grown into a modern processing company and multi-faceted trader in commodities.

#### Manufacture of substitute fuels

As well as providing a container service to local authority and commercial customers, and recycling materials collected by the recycling system in Germany, this family firm has become a specialist in the manufacture of substitute fuels.

To carry out this task, the company has been operating a MeWa granulation line for many years. Now Oliver Edelhäuser, who is heading the company in its fifth generation, has invested in the AlphaCutter 2200 from MeWa. "The customers check that the fuel supplied does not consist of monocharges", says the entrepreneur.

#### AlphaCutter L 2200

The AlphaCutter, used for preparing material for granulating, ensures the material is mixed well. Oliver Edelhäuser explains the powerful work of the new unit: "The machine draws through everything that is suitable for use as fuel".

#### Powerful cutting

On the extensive premises, packing material, bundles of fabric, old bits of carpet, paper reels, lumps of solidified sprayed material from the automotive industry and other high-calorific substances wait to be processed. As early as the first step in the process, the powerful cutting of the machine ensures that the waste is cut down to pieces of a uniform size.

This Rothenburg-based company has been using the larger AlphaCutter 3700 model for two years, and is therefore impressed by the MeWa machine in terms of its reliability as well: "The single-shaft shredder is less sensitive to extraneous material, and overall has substantially lower wear in terms of the processing principle of other systems".

#### Blowing consistency

In a further step in the granulating process, a MeWa granulator ensures that the physical demands on the end product are met. The quality-assured end product, i.e. a fuel which is free from PVC, minerals, iron, heavy metals, flame retardants and waste containing solvents, and which is of a consistency that enables it to be blown, is provided to the customer in a way suited to their requirements. RDF power plants



Oliver Edelhäuser (right) and MeWa Managing Director Ulrich Hink in front of the new AlphaCutter.

require a grain size of up to 150 millimetres, cement and lime works on the other hand require granulation to less than 20 millimetres. ■

#### Rothenburg ob der Tauber



This small Bavarian town, with its largely unaltered historic core, is a world-famous tourist attraction. The labyrinth of little narrow streets and small squares with their half-timbered houses make Rothenburg the archetypal mediaeval German town. The Plönlein, a one-time marketplace with the Siebersturm (left) and the Kobolzellertor, is among the most famous squares in the town.



Cooling Scrap  
=  
Quality Scrap  
Made in Mülheim

The powerful rotary shear cuts sheet metal into strips, which in turn are then rolled into cooling scrap.

**The RHM Group supplies the German steel industry with quality scrap, the "raw material" of which is largely obtained in the form of thick plates used in the automotive supply industry. These materials have been put into a MeWa rotary shear at the company's headquarters in Mülheim an der Ruhr.**

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The erstwhile blast furnaces of the steel industry today serve as a historic backdrop to the events organised for the European Capital of Culture "Ruhr.2010".

The Ruhr district, once the largest industrial region and largest "coal mine" in Europe, has transformed itself in recent years in many sectors. The service sector has grown, varied research institutions and new industries have arisen. As a lively metropolis of the future, the Ruhr district, under the motto "Change through culture - Culture through change", is presenting itself as the European Capital of Culture 2010.

Other industries have taken off since then.



**Structural transformation**

The city of Mülheim is a particularly good example of the change of the legendary coal and steel region. In 1849, steel production using coking coal started in this city for the first time in the whole Ruhr district. In 1964, Mülheim was the first city in the Ruhr district to have stopped steel production. Two years later, coal production followed suit. This meant that Mülheim was the first city in the Ruhr district to become free of

And yet, the Ruhr district is still a centre of the German steel industry. At its plant in Mülheim, the RHM Group has established itself as an important supplier to the steel industry. "From steel to scrap and back to steel – it can be used again and again for high-quality products." Under this motto, the RHM Group produces high-quality cooling scrap.

**Homogeneous quality**

To prevent excessively high temperatures when smelting iron ore, steelworks add cooling scrap to the process. This method requires homogeneous quality, so that no undesirable elements end up

back in the molten metal. For this purpose, RHM approaches production plants to obtain sheet metal considered as new scrap, or which is left over from automobile manufacture.

**Trials in the MeWa Test Centre**

First of all, these sheets are pre-granulated in a MeWa rotary shear UC 130 for subsequent processing. Previous trials in the MeWa Test Centre in Gechingen brought the expected result, thereby clinching the investment deal.

**10 to 15 tonnes per hour**

Since June 2010, the robust machine has been cutting approximately 10 to 15 tonnes of car doors, floor assemblies and other scrap moulded parts into strips every hour. These strips are then rolled for better batching, and supplied, correctly sorted, to the steel industry.

Because at the end of the day, several coal and steel companies still have their headquarters and largest production locations in the Ruhr district. ■

# Fresh fodder for the Bio-QZ



**When it came to extending its biogas plant, Biogas Alerheim OHG faced a decision: increase the fermenter volume, or install better granulating technology for the substrates? The choice was clear: the Bio-QZ 900 from MeWa.**

**A**t its site on the fringes of the Bavarian community of Alerheim, Wolfgang Gerstmeyr and Rainer Weng run a combined bull fattening and biogas plant, which has grown steadily over the years.

#### Innovative processing method

The output of the plant has now increased once more. The motors produce 800 KWh of power from the fermented methane. With their recent expansion, the entrepreneurs have set off on a completely new path.

Instead of adding even more fermenting volume as in the past, Biogas Alerheim OHG has invested in an innovative processing method which includes new feeding technology.

#### More gas yield

Rainer Weng explains the motives for his decision: "The deal was clinched by the simple principle of the MeWa-QZ with its very good substrate disintegration, and the robust machine design". Just as the bulls chew their food, the Bio-QZ chews up the input material with its rotating chains in the blink of an eye. The machine digests the cell structure as best it can, thereby increasing the working surface for the bacteria. From the same fermented volume, significantly more yield can be gained in a shorter time.

The versatility of the machine is also in demand in Alerheim. There are large quantities of maize, grass and whole plant cereal silage stored on the farm for feeding the cattle and the four fermenting containers.

With the Bio-QZ, straw can now be added to the fermenter as well. The farmers can also use seasonal fruit now, which is easily obtained from the market.

Moreover, the entrepreneurs add slurry and manure left over from cattle breeding as a co-substrate. Even stones, often found among the manure, are no problem for the machine. "The Bio-QZ also removes extraneous material", explains Rainer Weng, showing that he is convinced about the MeWa machine.

#### New Bio-QZ and Bio-Mix pump

Using a cyclical roller chain conveyor, the Querstromzspaner is fed in batch mode. The plug screw, available on earlier versions, has been replaced by the Bio-QZ and a downstream Bio-Mix pump.



The Bio-QZ along with the Bio-Mix pump has been perfectly integrated into the existing system design.

The pump mixes fermented slurry into the solid material from the MeWa QZ, and conveys the mixture to one of the four fermenting containers as required. Rainer Weng summarises the benefits: "We are now substantially more flexible in the run-

ning of our operations, and have a significantly more stable system operation".

#### Shorter stirring times

This shows itself through easier pumping and considerably shorter stirring

times. At the same time, the floating layers in the fermenter have disappeared.

Or as the operators say: "In the fermenter, motion can be detected in the substrates." ■

## Recycling know-how for biogas systems

**MEBA® GmbH takes over the sales and distribution of the Bio-QZ in German-speaking countries.**



Karl-Heinz Bachmann, Managing Director.

**F**or over 30 years, Karl-Heinz Bachmann and his Nördlingen-based company have been active in the recycling sector. MeWa has already worked closely with MEBA in the past in the distribution of components for the production of substitute fuels.

#### Experience in the biogas sector

The company is now wholly owned by MeWa. MeWa has found its ideal partner in Karl-Heinz Bachmann, who can help them to position the Querstromzspaner in the biogas sector. The Nördlinger Ries area has the greatest concentration of biogas systems in Germany. It therefore occurred to Mr. Bachmann that he should get to grips with this technology quite early on.

MeWa and MEBA, working together, further developed the technological parameters of the Bio-QZ step by step so that it would meet the particular requirements of biogas systems.

In the meantime, MeWa offers the entire process chain for a ready-to-use feeding system from a single source. In this way, the biogas sector can profit from methodological expertise in the recycling sector in terms of conveying and processing of substrates, separation of packaging and extraneous material and feeding technology for fermenters. ■





MeWa team at the trade fair

## Free arena at IFAT

IFAT 2010 - MeWa presents its entire range of machines.

**G**lobal stars and attractive newcomers, gigantic goliaths and astounding performers - visitors to Hall C2 experienced a whole world of recycling with MeWa, with the freedom to

touch, look inside, climb upon and crawl underneath. The international public showed its enthusiasm for the QZ, "Smash Boom Bang", AlphaCutter, CableCutter, rotor shear, granulator and cutting mill.

And various "performers" from the MeWa machine family were snapped up immediately from the exhibition stand and taken off to make future appearances across the world. ■

### Jürgen Lötterle appointed to the management team

**O**n 1st September 2010, Jürgen Lötterle was appointed to the management board at MeWa. Since 1995, the graduate in business administration has been responsible for inventory control at MeWa.

The 44 year-old from Weil der Stadt has been active for several years as an authorised officer with responsibility for materials administration, logistics, organisation, purchasing and operations scheduling.

In the future, Jürgen Lötterle will strengthen the company management of MeWa in the commercial field. ■



Jürgen Lötterle

### Imprint

#### MeWa News

Issued by:  
MeWa Recycling Maschinen  
und Anlagenbau GmbH  
Gültlinger Strasse 3  
75391 Gechingen, Germany  
Tel. 0049 (0)7056 925-0  
E-mail: [info@mewa-recycling.com](mailto:info@mewa-recycling.com)  
Internet: [www.mewa-recycling.com](http://www.mewa-recycling.com)

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