

Middleton flies the flag: Made in Britain

Middleton Engineering has recently launched the UK's first pre-press, twin-ram baler which combines the high throughput of a channel baler with the compaction of a twin ram machine.

Geraldine Faulkner went to Somerset to find out more about the baler and the company that makes it.

Geraldine Faulkner
Editor



IN MARCH 2009 the engineering sector accounted for almost one fifth (19.6%) of the UK's GDP and was almost three times the size of the financial services sector, according to a report entitled *Engineering UK 2011*, published by Engineering UK, a not-for-profit organisation whose purpose is to promote engineering. At the time, total turnover of the engineering sector was reported to stand at £848.6 billion and provided jobs for over 4.5 million people across 482,880 different enterprises.

So small wonder that three years down the line, Steve Young, Colin Millard, and Mark Smith at Middleton Engineering are cautiously optimistic about the increase in demand for their engineering expertise.

Specialists in balers and recycling equipment, Somerset-based Middleton Engineering have recently unveiled the UK's first British built pre-press, twin-ram baler.

With a press force of 150 tonnes, the machine is reported to be capable of producing very dense bales of waste material that has resulted in a new more compact bale size. It is said to be ideal for containerised transportation and the storage of baled waste materials including refuse derived fuel (RDF).

"Previously the loading and unloading of baled RDF waste in road containers has been difficult and time consuming to achieve without damaging the wrapping materials and rupturing the bales, simply because bale sizes have not been optimised," explains Mark Smith.

"The new square section bale, measuring 1050 x 1050 x 1400mm is the optimal size to load easily without damaging the wrapping and provides operators with a cleaner more hygienic solution, at the same time maximising the available container space," adds Smith.

Middletons believe they are the first British manufacturer to take this path.

By integrating pre-press features in the design, the engineering specialist says it is providing operators in the waste management industry with a powerful machine that combines the high throughput of a channel baler with the superior compaction of a twin ram machine.

"The design, which forces more materials into the chamber before the twin ram cycles through, achieves high compaction rates with fewer cycles and is therefore more energy efficient. As this is happening, a new charge of material can be prepared in the pre-press to maximise operational efficiency," says Young.

In addition, Middletons say their pre-press twin ram will be the first machine to combine both wire and plastic tie capabilities in the same machine, making it very quick to switch from different waste streams such as cardboard, which requires wire ties or RDF which uses plastic.

"Most manufacturers make either shear, pre-press or twin ram balers," explains Young. "What makes our machine so special is that it is both a pre-press and twin ram baler."

Middleton is so sure of the impact the baler is going to have on the market they have already booked a slot at this year's RWM show in September.

Secret of longevity

Founded in 1975 by Ashley and Joan Middleton, who are both still active in the company, the secret of the engineering specialist's longevity is its flexibility.

Young again: "We build anything from waste balers, shredders, conveyors and separators for the waste industry along with bespoke engineering projects for companies such as Serious Stages, specialists in the sale and hire of temporary staging for events like pop festivals."

Middleton Engineering helped build the ski ramp in Battersea Power Station and also worked on a bridge for Reading Pop



Middleton's pre-press twin-ram baler has a press force of 150 tonnes which gives it high compaction rates

Festival that connected the festival with the car park on the other side of the Thames.

"We have the flexibility to build what the customer wants," says Millard before adding: "When it comes to balers not too many people are comparable to our company. European manufacturers tend towards shear or pre-press balers while the US produce twin ram."

Originally based in the bottom of Ashley and Joan's garden in the village of Meare just outside of Glastonbury, the company now occupies 7,000 square metres of workshops.

"Ashley trained with Clarks, the shoe manufacturers, before starting up his own company making engineering equipment to extract peat from the peat land in the local area," recalls Young.

Initially, the company specialised in the design and production of equipment for the horticultural peat processing industry, a high proportion of which was centred in and around the Glastonbury area.

By the early 80s, Middleton Engineering had taken its expertise into the waste processing industry.

"A range of paper baling presses had been developed and were finding wide acceptance within the waste paper and packaging industries. Again, quality of service and workmanship, coupled with a problem solving design approach quickly established the Middleton Engineering as a significant supplier in this field," remembers Millard.

Scapa Engineering

Further expansion into the recycling market occurred in 1988 with the acquisition of the baling press expertise of Scapa Engineering, said to be one of the longest established British manufacturers of press and baling products.

Additionally, the company offers a sub contract supply facility in the production of hydraulic cylinders and rams to special order and design.

Customers include local authorities, waste management and recycling companies

through to major retail distribution centres.

Middleton Engineering also boasts a stock of over 20,000 spares. According to the company, this gives them "huge credibility to refurbish and repair most makes of balers in the UK today". Plus it says it is the only UK recycling industry engineers to provide a next day repair service nationwide.

There is also a healthy stream of work coming from Europe. In January this year, Middletons won a second order from Scandinavia's largest recycling company to export a Middleton HB60 shear baler to Denmark. According to the engineering specialist, Ragn-Sells of Sweden are putting the new baler, which can process six tonnes of cardboard an hour, at the centre of their cardboard recycling programme in Copenhagen.

Ragn-Sells, which collects, treats and recycles waste and residues from industry, organisations and households all over Scandinavia, says it chose a Middleton baler because the company produces a "quality product, competitively priced that has good capacity".

The first baler Ragn-Sells bought from Middletons was modified with the addition of a hook lift so it could be mounted onto a lorry to provide a mobile baling service for cardboard and plastics around the Norwegian islands, deemed to be more efficient than transporting all the waste to a central depot.

Bjørn Hoel, manager at Ragn-Sells, says: "This is the second baler we have bought from Middletons because we wanted a robust, fully automatic machine that is easy to operate and that requires a minimum of maintenance.

"It is particularly important that this second baler has low headroom and a small footprint so it can fit with the existing conveyor."

Ashley Middleton, founder and MD of Middleton has the last word: "It's great to be able to export British technology and have such prestigious companies coming to us for the quality of our products. All our balers are designed and built in the UK to endure, typically lasting over 20 years, and our expert refurbishment service means they can live to bale again often for another 10 years."

So, if Middleton Engineering has anything to do with it, UK engineering is going to continue to prosper, particularly in the waste industry.



Above: Middleton's twin ram baler being tested. Inset: Ashley and Joan Middleton who founded the company in 1975 and who are both still active at the Gloucestershire-based engineering business

