

GEAR Solutions

**Finite Element Analysis
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of Gearing**
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Case Study:
RUF Briquetting Systems

**COMPANY
PROFILE:**
Motion Industries


PRE-SHOW ISSUE



CASE STUDY

COMPANY: RUF Briquetting Systems

CUSTOMER: Corrugated Replacements, Inc.
and Horsburg-Scott

Two companies make
the most of their swarf
with RUF Briquetting.

By Greg Tucholski



BRIQUETTING IS A WAY TO REGAIN VALUE FROM THE MATERIALS YOU ALREADY HAVE. GEAR GRINDING OPERATIONS ARE FINDING THE VALUE THEY THOUGHT WAS LOST IN THE GRINDING SLUDGE. THE BONUSES OF INCREASED OPERATIONAL EFFICIENCIES AND SAFER WORKING CONDITIONS ARE REALIZED ONCE COMPANIES START USING A BRIQUETTING SYSTEM.

Corrugated Replacements, Inc., a developer of machine replacement parts for the steel, poultry, and satellite industries, and Horsburgh-Scott, a leading provider of industrial gears and custom gear drives for steel, aluminum, tire, rubber plants, and wind turbines, are just two of the many companies who looked to RUF Briquetting Systems to help squeeze value out of product they previously viewed as lost.

In 2013, managing monthly expenses of time, money, and resources dealing with swarf produced in the grinding process was a reality for Corrugated Replacements. Before purchasing a briquetting system, dirty swarf was stored in barrels on the production floor, and then disposed of by a costly hazardous waste removal company. With the briquetting system, things have changed.

“We were able to turn something that was a 100 percent expenditure process into a profitable revenue stream and reuse reclaimed coolant,” said Corrugated Replacements plant and engineering manager Scott Wallis. “It has been a win-win for our business.”

Similarly, the Horsburgh-Scott production process was positively impacted after the installation of a briquetting system in February of this year.

“The briquetter has helped our operation reclaim more than 1,650 gallons of oil from our swarf,” said Horsburgh-Scott manufacturing engineer Luciana Talpa. “The RUF machine works amazingly; it simplified the business and will pay for itself in less than a year.”

Horsburgh-Scott’s grinding sludge contained 63 percent oil by weight. The briquetting process was able to

reclaim nearly all of the oil from this saturated grinding sludge. The reclaimed oil is then reused, reduc-




ing the amount of new oil purchases needed for their gear grinding process.

Reducing oil and coolant loss is just part of the added efficiency of the briquetting system. Both companies have also reduced or eliminated hazardous waste costs, turning it into a revenue stream by selling the briquettes as scrap to steel mills.

Although it was not part of the initial goal, by improving operation efficiency and reducing expenses for wasted material and swarf, briquetting and reclaiming product has made for a safer work environment.

“The barrels where swarf was previously stored, waiting for disposal, created a heat safety issue,” said Wallis. “Not only did we regain a significant amount of floor space, but we also eliminated the need to store hazardous waste.”

These two companies, along with others in the metal grinding industry, have improved efficiency, safety, productivity and developed a new revenue stream, simply by recycling their own product through the briquetting process. 



ABOUT THE AUTHORS

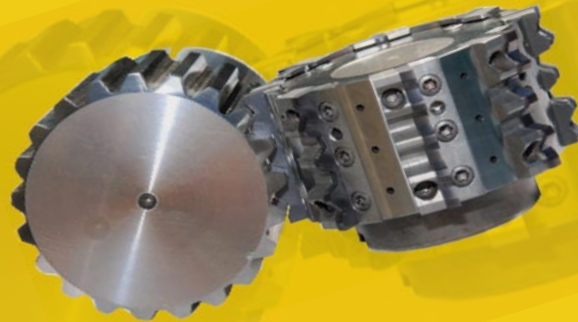
Greg Tucholski is the president of RUF US, Inc., an equipment supplier to the automotive, aerospace, agriculture, recycling, furniture, flooring, health products and heavy equipment industries since 2008. Tucholski, who has a BS in mechanical engineering, has been with RUF since 2001 and has more than 20 years of manufacturing and material handling experience.

Located near Cleveland in North Olmstead, Ohio, RUF is the North American subsidiary of RUF GmbH & Co. K in Germany—a global pioneer of advanced briquetting systems for more than 40 years. The quality and performance of its briquetting systems are proven worldwide with more than 3,000 currently in operation. For more information, visit www.RUF-Briquetter.com or call 440-779-2747.

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