



BIRN, Holstebro

# FOREVER REUSABLE PRODUCTS

To someone with a green heart, this may sound like a pipe dream, but in fact, “forever reusable products” are reality at the BIRN iron foundry in Holstebro in Denmark. Cast iron can be recycled over and over again. And you can even mix in another sustainable resource as well – namely steel from end-of-life tyres.

“Cast iron is a versatile and very durable material, and it forms the basis of all business throughout the BIRN Group,” Technical Director at BIRN, Lars Jørgensen, begins.

“Moreover, you can melt it down no end of times – in principle. Some properties would of course be compromised the more frequent the material breakdown; but we already control the process strong-handedly to maintain our high quality because the scrap we receive nowadays varies a lot. So it is not a problem. We for instance add magnesium or copper, and then we add some of our briquettes, which are made from recycled tyre wire

and cast-iron swarf. A quantity we have recently been able to increase from 15% to 25%.”

Important for the BIRN melting process is that iron blanks are compact – to minimise both air and surface area as much as possible. Tyre wire and cast-iron swarf intertwine very well and – in addition to the sustainable aspect – they contribute to a more ideal melting process. With the upcycling of waste material, the recycling of own resources and the development of products that can be reused over and over again, the sustainable core of BIRN is obvious. Although this large-scale manufacturer of cast-iron products has been around for more than

a century, the evolution of the green agenda is followed closely. And this is no coincidence.

“Sustainable solutions will be the winners of the future. There must be a balance between economic growth, social responsibility and continuously working to reduce our negative environmental impact. This is also what our customers want,” Lars Jørgensen says, continuing: “Society of today – and tomorrow – demands sustainability reports, carbon footprint documentation and life cycle analyses. And as the role of circular economy continues to grow, it has become an increasingly important focus area for us. We do what we can to take on this responsibility – e.g. by increasing the number of briquettes from recycled tyre wire in our production.”

“In terms of energy, using briquettes only would be a dream scenario, as their melting point is reached at lower energy consumption. At the moment, we produce about 1 million pieces each year, and we will try to increase the percentage of them in the future. However, at some point, we will reach the limit in terms of economics and quality. In these endeavours, the collaboration with our supplier of tyre wire, Genan, will be essential,” Lars Jørgensen concludes.

The cooperation between BIRN and Genan dates back many years, and every year, thousands of tonnes of tyre wire are sent from Genan’s factory in Viborg to the foundry in Holstebro. And this volume will most likely increase in the coming years when BIRN installs a new briquetting press in one of their many production halls. The new facilities have a larger capacity than the current ones – and consume less energy.

“We talk a lot about recycled rubber at Genan. The majority of a tyre is made of rubber, and there are many application options for both recycled rubber granulate and powder. However, a tyre also consists of approx. 15% steel, and this fraction goes to a foundry like BIRN,” says Application Development Manager at Genan, Michael Christensen, who welcomes the briquette development.

“Even though BIRN and Genan have very different product portfolios and production set-ups, we have a lot in common in our work with recycling and circular economy. The news about the increased amount of recycled steel in BIRN’s production is fantastic – and a benefit to us all. I personally hope that our future cooperation will be even closer, as we each have a lot of experience when it comes to life cycle analyses, carbon footprint and the ESG agenda. Helping each other will be an advantage for both parties, enabling us to find and develop the best solutions for a greener future together,” Michael Christensen concludes.



## ABOUT BIRN

- Founded in Holstebro, 1896
- More than 750 employees globally
- Produces 45-50,000 tonnes of cast iron annually
- Uses 25% briquettes made from recycling in its production



Michael Christensen  
Application Dev.  
Manager, Genan

