

# Sustainable

S u p p l y C h a i n

**UK**  
Edition

## Sustainable Metals Featuring Broder Metals

The next Chapter in Sustainable Metals

## Broder Powder launched

Major UK Metals company  
Invests in the future

## A Sustainable Voice for the Metals Industry

Working together to achieve SCOPE targets.

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Working together to create a better world

Global Sustainability Goals



# BRODER POWDER

## **Broder Powder Expands Global Presence with Partnership with 6K Additive**

In a significant move towards enhancing the availability of advanced materials for additive manufacturing, Broder Powder, a division of Broder Metals Group, has announced a strategic partnership with 6K Additive. This collaboration promises to provide customers in the UK and Ireland with unparalleled access to a full suite of high-performance metal powders, reinforcing Broder Powder's commitment to innovation and sustainability.

Founded in Sheffield in 2003, Broder Metals Group has carved out a niche by consistently listening and responding to customer needs. Initially focused on stocking and distributing high-specification stainless steel, nickel alloys, and super alloys, the company serves various critical markets, including Motorsport, Aerospace, and Nuclear. Their rigorous commitment to quality is underscored by achieving ISO 9001 certification in 2005 and AS9120 Aerospace certification in 2019, ensuring every material they sell is fully traceable and certified.

The new partnership with 6K Additive aligns seamlessly with Broder Powder's mission. At the core of this collaboration is 6K Additive's revolutionary UniMelt® plasma production system. This cutting-edge technology converts metal scrap and end-of-life parts into high-quality powders, such as nickel, titanium, and refractory alloys, all while drastically reducing energy consumption and carbon emissions compared to traditional methods. This innovation is a leap forward in performance and a stride towards a more sustainable future.



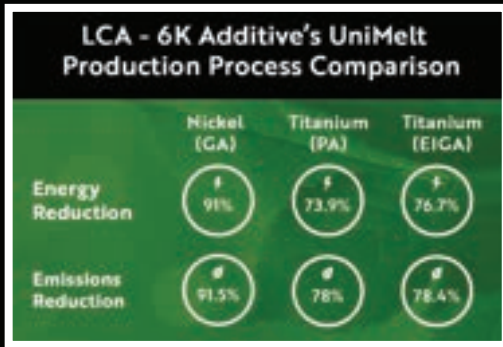
## UniMelt: The Future of Sustainable Metal Powder Production

The UniMelt® system, developed by 6K Additive, is a production-scale microwave plasma process that produces advanced materials for additive manufacturing and other industrial applications. The process precisely spheroidizes metal powders, ensuring consistent particle size, shape, and purity. UniMelt's unique capability to convert scrap and revert into premium metal powders highlights its role in promoting a circular economy.



One of the most remarkable features of the UniMelt® technology is its efficiency. The production process takes less than two seconds from start to finish, significantly faster than traditional methods that often take hours or even days. This rapid production is achieved through high-frequency microwave plasma, which creates an extremely uniform thermal production zone. Every particle undergoes the same process history, ensuring unmatched consistency and quality.





## Comparing Unimelt to Traditional Metal Products

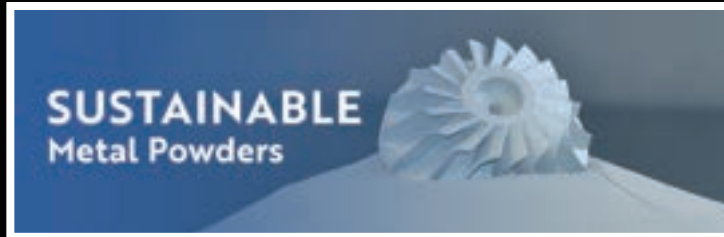
Traditional metal powder production methods are often energy-intensive and produce significant waste. Conventional processes involve multiple steps, each with potential yield losses and contaminant risks. In contrast, the UniMelt® system's single-step, continuous flow operation minimizes waste and energy use, aligning perfectly with Broder Powder's sustainability goals.

Broder Metals Group has historically offered high-specification stainless steel, nickel alloys, and super alloys, serving industries with stringent material requirements. The addition of 6K Additive's powders expands this portfolio, providing materials that meet the highest standards for aerospace, defence, hyper sonics, and other critical applications. UniMelt® powders offer superior performance, with precise control over chemistry and porosity, ensuring they meet or exceed the rigorous demands of these industries.



# A Commitment to Sustainability

This partnership represents a commitment to sustainability and innovation. By transforming waste into valuable resources, Broder Powder and 6K Additive showcase a shared vision for a greener, more efficient manufacturing future. The Life Cycle Assessments (LCA) completed by 6K Additive for their titanium and nickel powders provide stakeholders with insights into the environmental impact of these materials, further emphasizing the sustainable advantages of the UniMelt® process.



Over 40% of Broder Metals Group's sales are dedicated to export markets, reflecting their comprehensive in-house expertise in export regulations, shipping, and compliance. This new collaboration will further empower them to meet the stringent demands of their international clientele, offering next-day dispatch and responsive service.



This new chapter in Broder's story is about setting new standards in quality, innovation, and sustainability in the metal powders market. The future looks bright and more sustainable with this powerful partnership leading the way.

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