



Metallurgical Applications

Solutions for Heat Transfer

LUVATA
Partnerships with a Promise



Experience, innovation and versatility

We have been working in metallurgical applications for almost fifty years, providing tailor-made solutions for foundries, smelters and blast furnaces. We work closely with our customers to determine the right approach, partnering to innovate and find creative solutions that meet the exact requirements of the job. We have long-term experience in the industry from complete refurbishments to major new projects.

Reliability in the Most Demanding Conditions

Foundries and blast furnaces have extreme and demanding environments. Any downtime must be avoided where possible, which is why we pride ourselves on the reliability and high quality of our heat transfer solutions. Our manufacturing process is fully integrated, from delivery of pure cathodes to production of the final product. We are in complete control of quality standards.

High Thermal Conductivity is key

Copper, with its superb thermal conductivity, is an ideal material for use in foundries and blast furnaces. We produce many specialty products, including copper staves which protect the steel shells of furnaces, copper slag runners and other elements for hearths and tap hole areas. We are committed to continuous innovation, finding new ways to improve efficiency, leading to increased productivity and cost savings.

“We have been supplying components and solutions for foundries, smelters and blast furnaces for several decades, and in that time, we have worked as true partners with our customers, problem-solving and innovating to create one-off solutions for the most demanding environments.”

As demand for metals continues to grow, smelting and refining industries play a critical role in a successful green transition, electrification of societies and the circular economy. At Luvata, sustainability is a topic close to our hearts, and we are proud to play a part in this process. As a global company, we have the power to contribute positively to a better future, and we are determined to be a force for good in the development of e-mobility, the green transition, electrification and in healthcare and scientific research.”

President & CEO
Pekka Kleemola

Copper staves for blast furnaces

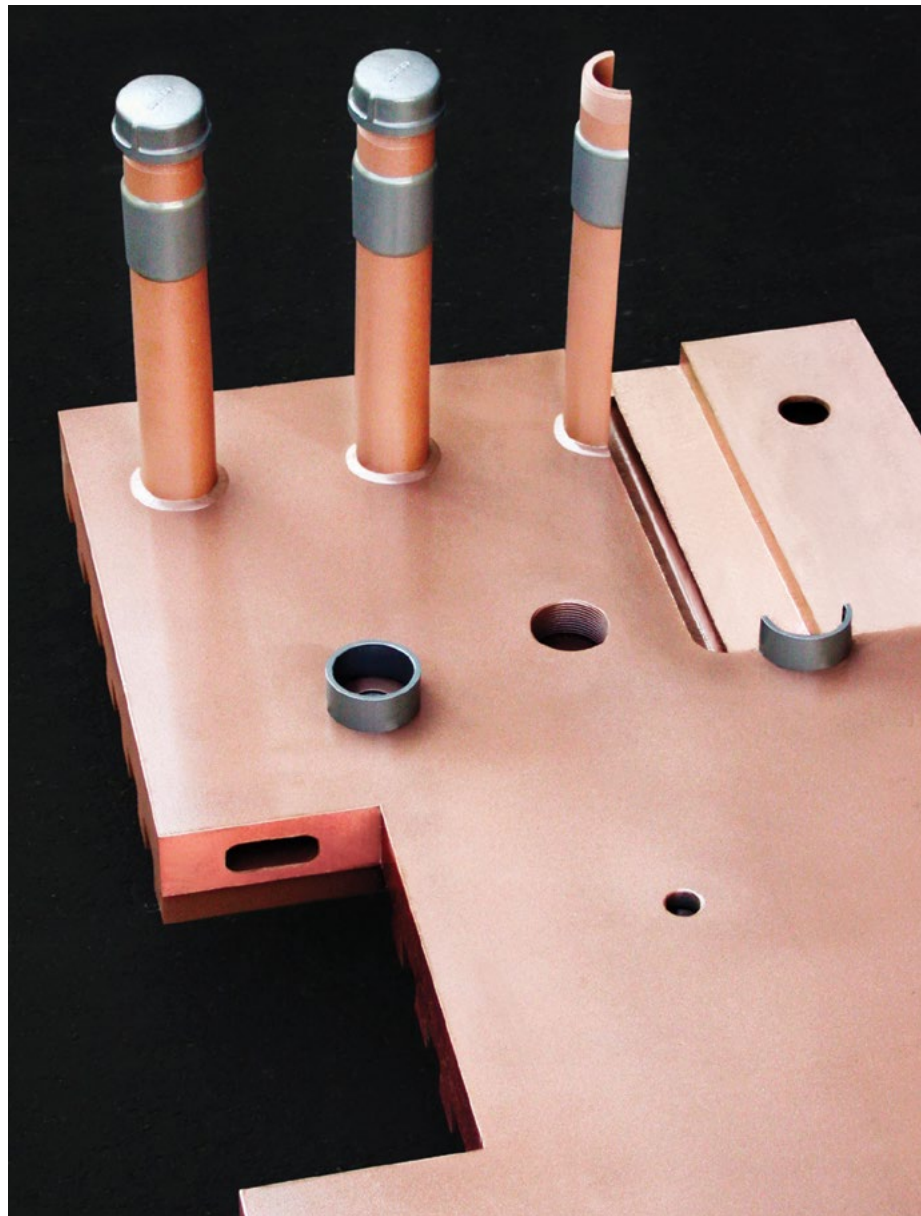
Nowhere are conditions more demanding than in foundries and blast furnaces, so our specialist knowledge and experience are invaluable. We work closely with some of the world's leading engineering companies and we are constantly seeking out new solutions to improve efficiency, increasing productivity and optimizing material usage.

Copper staves for blast furnaces

Staves are essential for protecting the steel shells of blast furnaces, and copper, with its superb conductivity, is an ideal material for them. At Luvata we have created a unique manufacturing process for copper staves. We use a continuous casting process to produce the cooling channels in the copper slabs. These are then hot-rolled to recrystallise the grain structure.

There are two key benefits to this innovative process. Firstly, the staff design is smaller, reducing weight and material cost. Secondly, the oval shape of the staves gives them a greater surface area, making them more efficient and creating more furnace volume.

We produce many other specialty products for metallurgical applications, including copper slag runners for blast furnaces and special elements for blast furnace hearths and tap hole areas.



Cooling elements and slag launders

Luvata's manufacturing process is fully integrated, from the delivery of the pure cathodes to the production of the final product, so we can be sure that our quality is second-to-none.

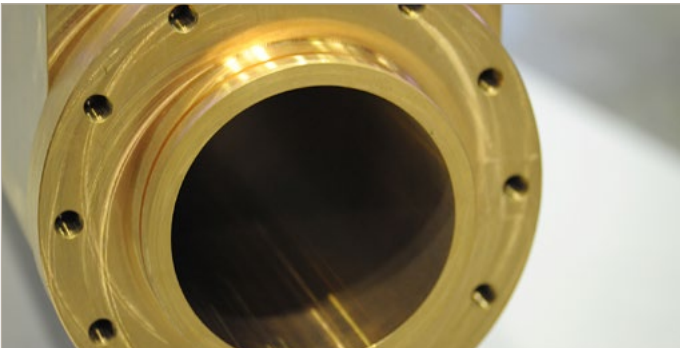
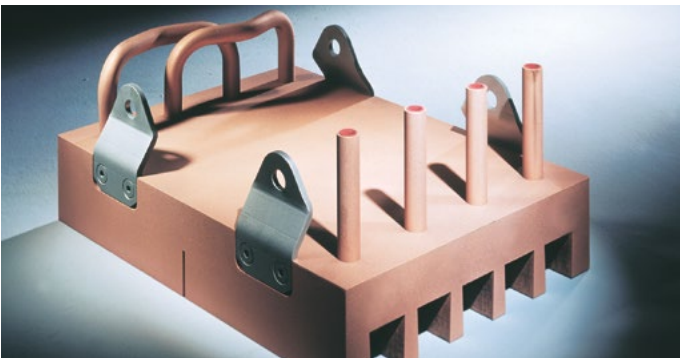
We have a flexible approach and can design a complete solution, or to create a product from a customer's own drawings. Our runners can be produced from separate sections for the bottom and wall cooling, with cast-in water channels, or alternatively

from one rolled, bent plate with drilled water channels. We can offer a choice of hot-rolling and drilling, or even mould casting, depending on the customer's precise need.

We produce components for electric arc furnaces, where high thermal and electrical conductivity are essential. These include cooling elements, electrode holders and bus tubes.



Metallurgical applications at work



Luvata - Partnerships with a Promise

Working for People, Society and the Earth

We all want to ensure a sustainable future for our planet. As a manufacturer, we know that we have both an opportunity and a responsibility to contribute positively to the changes needed to secure that future. We have stated that our vision is to be the leading provider of copper solutions that benefit people, society and the earth, and this is a serious commitment. We are active in markets such as e-mobility, healthcare, electrification and the green transition, all of which have a need for copper products. We believe that our innovations will help drive these markets forwards, making green solutions more easily accessible to all.

We also recognize the need for our operations to be sustainable. To this end, we are striving to reduce greenhouse gas emissions, aiming to be using 100% renewable electricity by 2035 and to be fully carbon neutral by 2045.

Helping our customers grow and thrive

We have always worked in partnership with our customers, getting to know their businesses and collaborating on custom-made solutions. We take great satisfaction in seeing our customers thrive, and knowing that we played a part in their success.

Where we believe we can make a real difference is in sharing our robust manufacturing capabilities, technology and material knowledge, and by using our unique expertise to develop technically-demanding products. Together with an emphasis on lean production, innovation and value-added solutions, we work hard to ensure that we are the partner of choice for our customers, every time.

Partnerships with a Promise

At Luvata, we deliver on our promises. We have pledged always to treat people with respect, keep an open mindset and work together with others.

Our global footprint stretches across four continents. Our diversity of locations, cultures and markets gives us access to a wealth of knowledge and expertise that continues to grow. It also means that we are local to our customers, wherever they are, so we can continue to forge the strong relationships we are known for.



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About Luvata

Luvata is a world leader in copper manufacturing and related engineering services. It brings together people, innovation and technology to create solutions in areas such as e-mobility, healthcare, and in electrification & the green transition. The company's success is driven by innovation, lean production and value-added sales, and its vision is to provide copper solutions which benefit people, society and the earth. Employing over 1,400 staff on four continents, Luvata works in partnership with customers such as ABB, CERN and Siemens. Luvata is a group company of Mitsubishi Materials Corporation.



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