

Metallurgical Applications Bus bar systems and tankhouse accessories



Turn-key solutions to illuminate the most complex projects

Luvata is a world leader in metal fabrication, engineering and design. With operations on three continents, you will find our components and our expertise in some of the world's most successful technologies, including photovoltaic energy, MRI scanners, cooling and refrigeration, and even the Large Hadron Collider. In fact, anything that contains copper is likely to have felt Luvata's influence.

We have been working in Metallurgical Applications for nearly four decades. We use our expertise and know-how to provide tailor-made solutions for foundries, smelters, furnace mills and for the electrolysis industry. Every customer is different and we pride ourselves on our innovative approach and versatility in coming up with the right solution, time after time.

to determine the right approach. From end-to-end solutions where we design, manufacture, deliver and install everything; to simply supplying an offthe-shelf product; we are happy to help. Nobody understands copper like Luvata, and when you buy into our expertise you can rest assured that our first class project management, after sales service and attention to detail come as standard.

⁴⁴ When we say that we provide metallurgical applications, we are not just talking about products. We manage the entire process for our customers, from the initial design to the manufacturing and installation of the application. In short, we supply a complete, turn-key solution, which means that our customers have one point of contact and one, very safe, pair of hands for the whole project. We believe that no-one knows metallurgical solutions like Luvata and, however big or small the project, our delivery will be seamless.¹¹

Jussi Helavirta Executive Vice-president Special Products Division

Bus bar systems and tankhouse accessories

Luvata has worked closely with electrolysis facilities worldwide in order to develop a comprehensive range of products which are optimised for equipping new installations and modernizing old ones.

The resultant product range includes:

- Main bus bars
- Intermediate bus bars
- Cell bus bars
- Droppers
- Flexible joints Hanger bars
- Short-circuit frames

A total solution

We can supply these products off-theshelf, ready for immediate installation. Alternatively we can provide an end-to end service where we manage the whole project, from the design, manufacture and production of the entire bus bar system, to the actual installation. This custom-made approach is increasingly popular as we have found that working together, we can find solutions to even the most difficult problems and achieve the desired outcome both economically and technically.



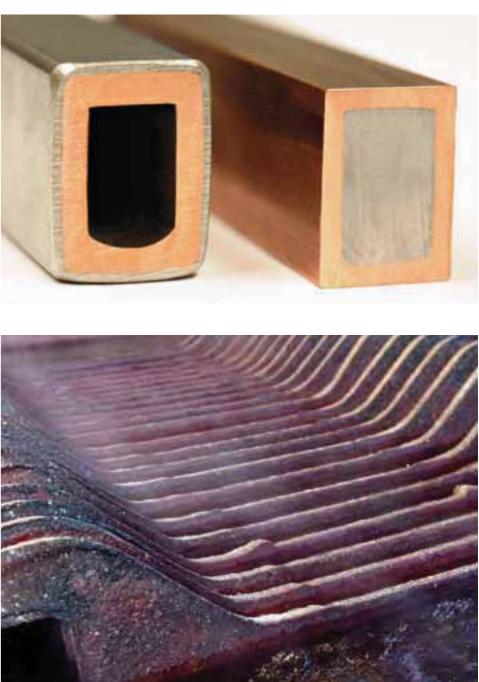


Only the best materials

We use Luvata's proprietary oxygen-free copper OF-OK[™] as it is immune to hydrogen embrittlement and avoids any problems with welding. It is also known for its high malleability and electrical conductivity and it is an excellent material for installations demanding control of high voltages and currents.

Sometimes an alternative to an allcopper solution is required. We produce hanger bars in different shapes and dimensions, and our steel-cored hanger bars offer a combination of high strength and high conductivity with corrosion resistance. Other variations we offer include water-cooled intermediate bus bars which enable transfer of high currents efficiently; and lead coatings which provide corrosion resistance in demanding tank house environments.

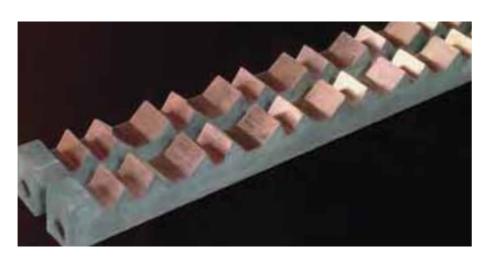


















About Luvata

What does Luvata see for the future?

We have always aimed to improve our customers' products and it to emerging societies, we will all need to become much more processes, and to help them increase the efficiency of their efficient and to take much less from the planet. We are helping businesses. But our vision is bigger than that. If human society companies to make their products, processes and production is going to maintain the lifestyle that we all enjoy today AND offer more sustainable: do more, waste less, and pollute less.

What's Luvata's plan for getting there?

Luvata is increasingly bringing its expertise and dedication to engineered solutions, and we are developing new solutions in high-growth regions and markets around the world. We are partnership with our customers to conquer challenges at the stepping into niche and specialist markets with our high-value, front end of market demand.

How does Luvata behave?

In doing all this, we resolve to be the partner of choice for our and responsible friend to everyone else. We strive to be open-minded customers, the employer of choice for our staff, and to be a positive and focused on getting results; and when we promise, we deliver.

Where in the world are we?

The sun never sets on Luvata: our global footprint stretches across that simply keeps growing. It means that we are local to our America, Europe and Asia. Our diversity of locations, cultures and customers, wherever in the world they are and can be responsive markets gives us access to a wealth of knowledge and expertise to their needs, including fast local delivery straight to the door.













About Luvata

Luvata is a world leader in metal fabrication, component manufacturing and related engineering and design services. We are committed to partnering with our customers to help them increase their competitiveness. Our products and services enable our customers to improve their products and operational efficiency and reduce tied-up capital. Because we focus on our customers' results and are unfailingly reliable, we are the partner on which our customers base their future development. See www.luvata.com for local contacts in your country.

www.luvata.com

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