

A close-up photograph of a copper pipe, showing its characteristic reddish-brown color and grainy texture. A circular stamp is visible on the surface, containing the letters 'MB' and the number '6600/4'. Below this, the letters 'LIP' are partially visible. The pipe is curved, and the lighting highlights its metallic sheen.

Tradition and future: upcycling copper for over 550 years

Vision, history, products, and people –
Montanwerke Brixlegg AG at a glance

We keep copper
in circulation.
And we are conscious
of the responsibility
that this tradition
holds for the future.

Our plant lies deep in the Tyrolean mountains –
where we upcycle copper for the whole world.



We are a traditional
Austrian company that's
shaping the future:
We've been passionate
about copper and silver
for over 550 years!

ABOUT US

We export more than 80% of what we produce. Our products boast high market recognition, excellent quality, and numerous areas of application. The BRX brand is a well-known trademark across the globe.

Copper and silver ore were mined in Tyrol and refined into pure metals in Brixlegg into the 20th century. As mining has declined from around 1890 onwards, ever-larger amounts of copper-containing secondary materials have been used as raw materials for producing metal in place of ore. Montanwerke Brixlegg is now purely an upcycling company.

With more than 300 employees based out of our Brixlegg location, Montanwerke Brixlegg AG is a key industry leader in western Austria.

Our Brixlegg plant uses cutting-edge technology for copper recycling and refining. To stay on top of our steep international competition, we continuously refine our processes for extracting valuable metals, working closely with both Austrian and international universities.

i All of our processes and products are certified according to EN ISO 9001, a stringent quality standard that is recognized worldwide. Our company is also certified as a waste management company, and our environmental management system is certified according to ISO 14001.

Our principles are clear: Quality, Environment, and Safety.

Montanwerke Brixlegg AG always delivers premium-quality products on schedule and takes a flexible approach to meeting individual customer needs. We quickly respond to shifting market situations, employing a certified quality management system to map the required processes, interdependencies, and responsibilities. Our longstanding partnerships with suppliers, as well as our access to an international network, ensure the availability of the necessary (raw) materials.

Our excellent production and quality standards lead us to excel in our market segments.



We draw on our strong regional roots to shape our future across the globe.



Running our business both efficiently and sustainably is crucial to us.



We support and challenge our employees in an agile market environment.



We're an international supplier of flexible copper solutions – and our chief objective delivering benefits for our customers.



Our most precious commodities are our employees and our sense of social responsibility.



Here at Montanwerke Brixlegg AG, we're proud of our 550-year history.

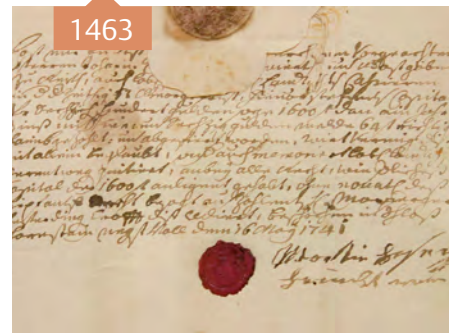
Four smelting works are operating in Brixlegg. Ore mining and smelting are commissioned by the local rulers in Schwaz, Kitzbühel, Schneeberg, Gossensasser, Pfunderer Berg, Nals, Terlan, the Mining Court of Imst, and other locations. Private unions and self-employed miners can also have their ores processed at the Brixlegg works.



1505

1560

The Unterinntal silver mining smelting works held by the local ruler is established in the location where Montanwerke still stands today. Incidentally, Montanwerke is the only copper smelting works in Austria.



1463

The Brixlegg copper and silver smelting works is first documented. The Bavarian duke Louis the Rich lays the cornerstone for the works in the small town of Brixlegg, which belongs to Bavaria at this time. The economic development of the smelting works was closely linked to ore mining in Tyrol up to the 20th century.

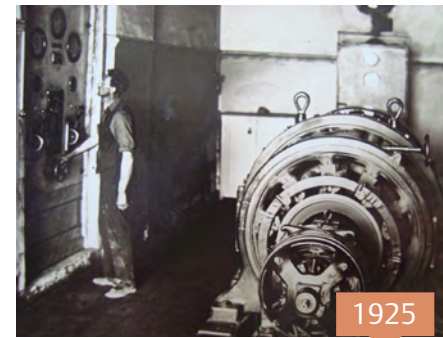


1687

Two granaries are built on the Inn River in 1687 and 1718, respectively. These mainly supply the local mine, metalworkers, and inhabitants. There are three granaries in total, but it is unclear when the third was established; reports of it date back to the 16th century.

i On April 4 2012, Montanwerke Brixlegg Aktiengesellschaft and Gindre Duchavany S.A. in Point de Chérury, France, along with their subsidiaries, are acquired by UMCOR Holding GmbH, Vienna (a subsidiary of UMCOR AG, Zurich).

The first converters with a filter system are put into operation. Copper products from Brixlegg are used all over Austria: Brixlegg copper sheets are used on the rooftops of the Parliament Building, the Palace of Justice, and Schönbrunn Palace in Vienna. Coin metals from Brixlegg are supplied to the mint in Halle, as well as mints in Vienna, Milan, and Venice.



1925

In keeping with the increasing use of electricity, the foundry starts to produce highly pure copper, made possible by introducing large-scale refining electrolysis. Copper sulfate has been generated as a special product ever since.

1885



1988

Montanwerke Brixlegg becomes one of Europe's most modern copper producers when it commissions an electrolysis plant based on cutting-edge technology with an annual capacity of 50,000 metric tons of the highest-quality cathode copper. Montanwerke Brixlegg is Austria's only copper foundry and operates purely as a recycling company.

Electrolysis capacity is increased to 122,000 metric tons/year – a new record.



2018

Montanwerke Brixlegg AG celebrates its 550th birthday. We have been shaping our local region for over half a millennium, and remain conscious of the responsibility we have to uphold our traditions into the future.

2013

We are known for high-quality products that serve as source materials for a wide range of applications.



Our refining processes obtain pure metals, salts, oxides, fungicides, and abrasives from secondary materials containing copper, such as scrap, alloys, residues, and solutions.

The products created using this process serve as source materials for a range of applications in the electronics industry, the construction industry, mechanical and system engineering, the high-tech sector, electroplating technology, agriculture, and more.

The raw materials listed above contain copper, as well as several other metals, such as nickel, zinc, tin, and precious metals. Following initial assessment and sampling, we use the raw materials in the shaft furnace, converter, anode furnace, or smelting furnaces, depending on the type of refining required.

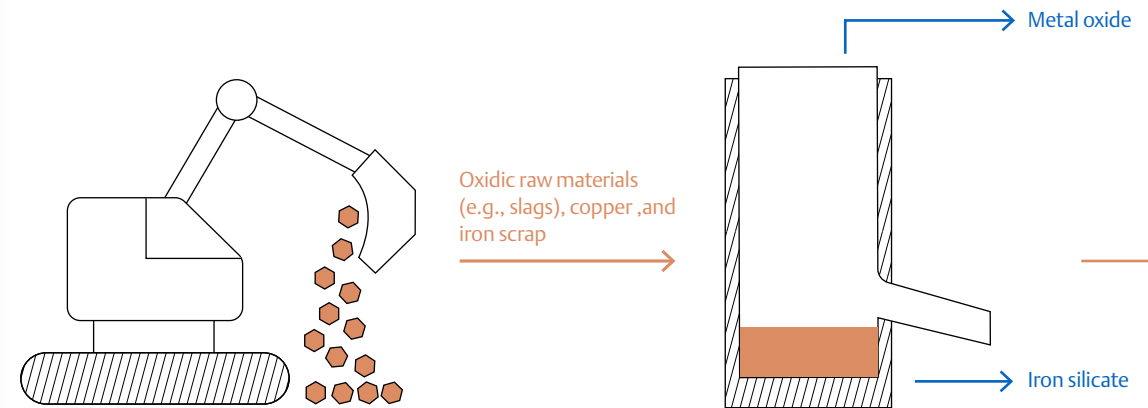
It is important for us to inspect the secondary materials we receive for problematic substances, such as mercury, cadmium, or lead, as well as to check for radioactivity. Following these assessments, which were devised by experts, we either reject the secondary materials or approve them for processing.



RAW MATERIALS STORAGE



SHAFT FURNACE



BLACK COPPER 75% →

Following initial inspection and sampling, and depending on the type of refining required, we use the raw materials we've received in the shaft furnace, converter, anode furnace, or smelting furnaces.

During the pyrometallurgical refining process, we smelt the metals and clean them at temperatures of around 1,200°C. Materials with low copper contents (such as shredder copper, or copper iron material) are smelted together with coke, quartz, and calcium oxide in the shaft furnace.

The raw materials used in the production process are copper-containing dusts, ashes, drosses, shredded materials, sludges, and runback slag with copper contents between 15 and 60%, as well as other alloy scrap, such as brass, bronze, and red bronze with copper contents between 60 and 80%. The materials we use for refining, such as scrap copper, wires, profiles (rods, metal sheets, rails, etc.), and cut-up and sorted electrical cables contain around 80 to 99% copper. We use high-grade runback scraps from manufacturing semi-finished products directly in the foundry without refining. Alongside these solid raw materials, we also reprocess copper chloride solutions from the electronics industry.



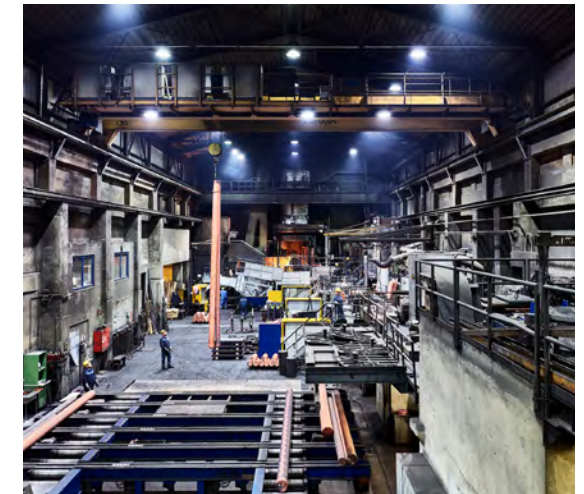
CONVERTER



ANODE FURNACE WITH CASTING LINE



TANKHOUSE

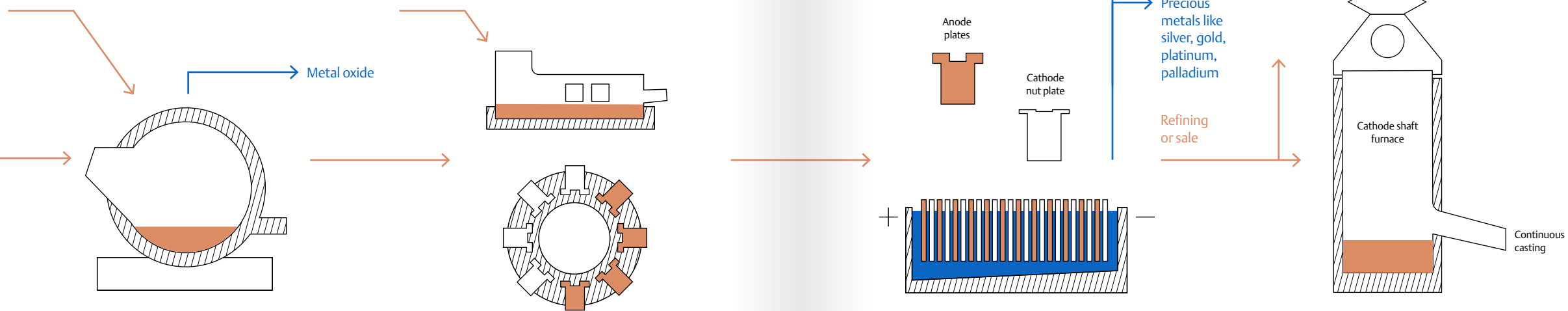


FOUNDRY

Alloy scrap
(brass, gunmetal, etc.)

Copper scrap
Blister copper

Metal oxide



RAW COPPER 96%



COPPER ANODES 99%



GRADE A/A PLUS COPPER CATHODES



BILLETS OR CAKES



The molten metal from the shaft furnace – black copper with a copper content of approximately 75% – is further processed in the converter together with alloy materials, such as brasses, bronzes, and red bronze. During this process, lead, tin, and zinc are separated as mixed oxides using oxygen.

The molten metal produced by the converter has a copper content of up to 96%. It is further purified in the anode furnaces, where it is mixed with other ingredients, such as sheet, pipe, and wire scrap, as well as anode scrap resulting from electrolysis. The finished molten metal from the anode furnaces has a copper content of approximately 99% and is cast into anode plates.

Anode plates serve as the source product for hydrometallurgical refining, during which copper is refined using electromechanical processes. The anode plates are hung in cells filled with a sulfuric acid solution of copper sulfate (the electrolyte). Stainless steel sheets serve as cathodes on which the copper placed in the solution separates from the anode, under the influence of the electric current. This copper is mechanically removed for later use as cathode copper. This material is highly pure – it has a copper content of over 99.99%.

In the foundry, high-purity copper scrap (production waste from processing plants) and copper cathodes are smelted in a gas-fired shaft furnace or in electric furnaces. During the vertical continuous casting process, strands with diameters ranging from 150 to 500 mm and cakes with lengths of up to 8 m are cast intermittently. The qualities of the copper cast are adapted to the customer's requirements with the addition of oxygen, phosphorous, silver, or tin.



High-quality and versatile: our products can be used for a diverse range of applications.

Montanwerke Brixlegg AG upcycles from copper-bearing secondary materials and uses pyrometallurgical, hydrometallurgical, and chemical processes to create:

- // Copper cathodes
- // Copper shapes (round bolts and cakes in high-purity copper and copper alloys)
- // Precious metals (gold, silver, palladium/platinum)
- // Granos and iron silicate stone
- // Copper oxychloride (fungicidal active ingredient)
- // Flowbrix (plant protection product with Cu)
- // Nickel sulphate
- // Metal oxides (zinc, tin, and lead oxides)


From the point of view of the recycling economy, the production of this product variety is both ecologically and economically essential for the continued existence of our company.



BILLETS



CAKES

 You can find all data sheets for our products with current specifications and packaging units online at www.montanwerke-brixlegg.com/downloads.

← COPPER CATHODES

Our copper cathodes are made of extremely pure copper with a copper content of at least 99.99%. Brixlegg cathodes are registered on the London Metal Exchange (LME) under the BRX brand as "Cathodes Grade A." They comply with the EN 1978 standard, the IWCC requirements, and ASTM B115.

They are used, for example, in the **electrical and electronics** industry as contact carriers or cables; in the **automotive** industry as contact, transmission, and connection parts for engine control and engine diagnostics; in the **construction** industry as hot water and heating pipes or facade cladding; in **interior design**; in **medical technology** or in **mechanical and plant engineering** as sprockets, shift forks, or for transmission parts such as toothed and bevel gears, and in the **high-tech sector** in high vacuum technology, as superconductors and for particle accelerators. For special applications in these industries, where high-purity copper is required, we offer even higher quality with particularly low impurities, especially for the elements sulphur and silver, in the form of Grade A PLUS cathodes.

← BILLETS & CAKES

Billets made from the purest copper and alloys are cast in continuous casting plants in various dimensions, cut to the size the customer requires, and produced in a number of variants:

- // Oxygen-free (e.g. MB-OF 101 certified, MB-OFN, MB-Ag0,1-OF ...)
- // Oxygen-containing (e.g. MB-ETP, MB-Ag0,1+O)
- // Low alloy (e.g. with P, S, Ag, or Sn)
- // High alloy (e.g. lead-free special brass, high-strength alloys with Cr, Ni, Si, Zr, as well as Ni and Al bronzes, ...)

These products comply with the EN 1976 and ASTM B170, B379, B187, B224, and B5 standards. They are used as a starting material for semi-finished and finished parts in a wide range of applications in mechanical engineering, electrical engineering, building and sanitary engineering, and the automotive industry.



PRECIOUS METALS

Gold with a purity of 99.99% and **silver** with a purity of at least 99.97% are usually supplied in the form of granules. **Platinum/palladium** is produced as a blended cement and contains approximately 5% platinum and 60% palladium.



GRANOS/IRON SILICATE STONE

The slag from the shaft furnace is granulated, classified, and sold as a fine-grained, sharp-edged product for use as a sandblasting material under the brand name Granos.



COPPER OXYCHLORIDE

Dicopper chloride oxychloride is produced in powder form and used as a fungicide in plant protection products.



FLOWBRIX

Flowbrix is an aqueous dicopper chloride oxychloride-based suspension concentrate developed by Montanwerke Brixlegg AG. It is used as a highly effective fungicide in plant protection and organic farming.



NICKEL SULPHATE

Pure nickel sulphate is extracted from de-coppered electrolyte during refining electrolysis. Nickel sulfate is used for nickel plating in the electroplating industry.



Upcycling copper – to help protect the environment

Active environmental management as a lived corporate principle

Montanwerke Brixlegg AG is committed to methodically and continuously improving its environmental performance and makes sure to uphold environmental regulations in everything it does – these principles are firmly anchored in the corporate policy. The company drives improvement through measures like helping to expand and maintain a circular economy, deploying environmentally friendly technologies, and boosting energy and resource efficiency. Process-related emissions are monitored on an ongoing basis and minimized through the use of cutting-edge technologies. A certified environmental management system in line with ISO 14001 and a waste management facility in line with Austrian law represent the core elements underlying the methodic, continuous improvement of environmental performance within the company, thereby laying the groundwork for sustainable development and maintaining favorable environmental conditions.

Our specialized recycling expertise reinforces the circular economy and saves energy

The core competencies of Montanwerke Brixlegg AG are recycling copper-containing secondary raw materials and recovering this raw material. This saves a great deal of energy: Recycling consumes up to 85% less energy than primary production requires! Since recycling copper covers the need for this material, Montanwerke Brixlegg AG makes a significant contribution to Europe's circular economy, as well as to the conservation of resources. Projects to boost energy efficiency are highly prioritized and aim to save primary energy sources while minimizing greenhouse gas emissions.

We're an attractive employer – for motivated people with passion

Many residents from Brixlegg and people from the surrounding area have been working for the company for generations and are very closely associated with the Montanwerke. The average length of service is 18 years; anniversaries of 35 years and more are not uncommon.

With more than 300 employees, we are specialists in the field of copper recycling and are distinguished by excellent product quality and a high level of environmental awareness.



UPCYCLING 
COPPER ♀



MONTANWERKE BRIXLEGG AG

Werkstraße 1
A-6230 Brixlegg

Phone: +43 5337 6151
Fax: +43 5337 6151 2102



office@montanwerke-brixlegg.com
www.montanwerke-brixlegg.com