Activating Your Ideas
Stainless steel for metallurgical processes
We are here to activate your ideas
When you team up with Outokumpu, you gain access not only to a wide range of proven and innovative stainless steels, but also to the technical support we have acquired over decades of experience in working with leading mining and metallurgy companies all over the world. We are here to activate your ideas and help you achieve world-class innovation and cost-efficiency.

Helping you solve your challenges in a tough environment
Thanks to its many beneficial properties, stainless steel is increasingly the material of choice for a host of metallurgical processes, from hydro- and pyro- to electrometallurgical. You will find our stainless steels everywhere from mining screens, pumps and drills through to fluidized bed boilers, heat exchangers, as well as pipes, tanks, vessels and structural components. We know we can meet your toughest materials challenges and look forward to being put to the test.

The right stainless steel for your needs
Technological advances in minerals and metals extraction have made choosing the right stainless steel grade ever important. Several corrosion mechanisms are often at work simultaneously, and to this end we offer the right stainless steel for your needs, whether this involves our standard austenitic or special high-performance and heat resistant grades. All of our stainless steel grades come with industry-leading tolerance accuracy.

Metallurgical processes from ore milling to product recovery take place in tough conditions. Add to this the complexity of the chemical reactions, and it is easy to see why materials must be selected with care. As a world-leader in stainless steel with decades of experience in the industry, we have the stainless steels and the expertise you need to arrive at the best solution.

We are just around the corner
Teaming up with Outokumpu also means gaining access to a global network. From our production facilities in Finland, Sweden, UK, USA and the Middle East through to our vast network of stock & process location in all the key markets, you always have a dedicated team to focus on your needs. From zinc mining in Australia through to copper mining in South America and beyond, you will find us just around the corner.
We are here to make the process of purchasing stainless steel as easy as possible

Real services to ease your life
Our vision to be the undisputed number one in stainless steel means that we not only deliver only the best stainless steels for your metallurgical processes, but also work extra hard to ease your life by providing a host of services on top of the product. You will find that our services are unmatched in the industry, all the way from studying your needs on the spot through to grade selection advice, professional help in materials selection, planning and logistics support.

Materials testing for the extra edge
We have decades of experience in testing stainless steels in metallurgical environments, with the results of many of these tests handily available to you in our Corrosion Handbook. We also offer the opportunity to test candidate materials in your own processes, supported by testing and evaluation by our specialists in our state-of-the-art corrosion laboratory. These tests ensure that the grade you finally choose is the optimal solution.

E-tools for product selection and more
In order to further streamline the ordering process, we have introduced easy-to-use online tools for your benefit. The tools allow you to search and select from our wide range of products, learn about their corrosion, welding and other properties, and send in any questions and enquiries that you may have. The tools are available 24 hours a day. To learn more, visit Outokumpu.com -> Products -> Useful Tools Online.
Certified products, quality control and documentation
All of our products comply with the strictest quality, safety and environmental standards and meet the relevant national and international authorizations. This covers our main production facility in Tornio, Finland, which is the most-integrated stainless steel production facility in the world with its own captive ferrochrome mine, through to our other production plants around the world. We produce stainless steel of the finest quality with every batch documented in detail.

A grade apart. Refining ever better steels for your needs

At the forefront of new grade development
We have an exceptional track record in innovating stainless steels for a variety of industries, many of which share similar corrosion issues and materials challenges as metallurgical processes. For example, our high-performance grade Outokumpu 654 SMO® offers levels of pitting and crevice corrosion resistance not offered by any other stainless steel, while our special heat resistant grades are making their mark in a host of pyrometallurgical applications.

Duplex is increasingly the answer
Our duplex stainless steels are increasingly making their mark also in metallurgical processes. This is because for the corrosion resistance offered by an austenitic grade, we can today offer a duplex counterpart that not only offers the same or better corrosion resistance, but also twice the strength, which translates into thinner wall thickness and cost savings in a host of applications. Less weight also means less cost in transport and handling, while our unique ability to offer 2-metre-wide plate delivers additional savings in welding.

Outokumpu's offering in a nutshell
Our offering for the metallurgy industry covers a full range of austenitic, duplex, ferritic and high-performance stainless steel grades. This includes coil, strip, sheet and plate, as well as process tubes, pipes and fittings and also bars. We have strong capability for delivering tailor made parts, and offer a wide range of options for polished and brushed surface finishes, plasma, laser and water-jet cutting, as well as sawing, press braking and edge preparation for welding.
Hydro, pyro and electro. Winning ideas for competitive advantage.

**Combating corrosion in Jarosite tanks**
High-performance grade Outokumpu 904L (1.4539) is the most common choice. Duplex grade Outokumpu 2507 is also excellent as its higher strength allows for reduced thickness and therefore cost reductions of up to 30%.

**Broad selection of grades for heaters and flash vessels**
Material selection will depend on the salinity and the quality of the process water. Where chloride levels are high, Outokumpu 654 SMO® can replace titanium or nickel alloys, whereas duplex grades Outokumpu LDX 2404® and 2205 are excellent for low chlorides or cooler ends.

**Optimal corrosion resistance for electrowinning**
Outokumpu offers a wide range of grades for electrowinning applications. The chosen grades are often austenitic Outokumpu 316L, duplex Outokumpu 2204, LDX 2404®, or 2205 depending on water quality.

**Uncompromised performance for cathode plates**
Outokumpu 4404 has been the proven choice since the 1970s. Today Outokumpu duplex grades also offer an excellent choice for some applications due to the cost savings they deliver.

**Weight and cost savings for storage tanks**
For each austenitic grade there is a duplex grade that offers the same or better corrosion resistance and also twice the strength for significant wall thickness reductions in a host of tank applications. The grades range from lean duplex LDX 2101® through to 2304, LDX 2404®, 2205 and 2507.
Outokumpu
– Activating Your Ideas

We are committed to excellence everywhere. Not just in product development and customer service, but also in logistics and the development of new technologies for the environment.

What distinguishes Outokumpu is our total customer commitment in all that we do. You have the idea. We offer the world’s best stainless steels to meet your needs.

Our technological leadership allows us not only to tailor solutions to meet your specific needs, but also to work with you for a host of services on top of the product.

Our global network supports you all the way from studying your needs on the spot to providing professional help in quality and production planning.

We sustain value by continuously developing our people and putting the customer at the heart of everything we do – let us activate your ideas.

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Activating Your Ideas

Outokumpu is a global leader in stainless steel with the vision to be the undisputed number one. Customers in a wide range of industries use our stainless steel and services worldwide. Being fully recyclable, maintenance-free, as well as very strong and durable material, stainless steel is one of the key building blocks for sustainable future.

What makes Outokumpu special is total customer focus – all the way, from R&D to delivery. You have the idea. We offer world-class stainless steel, technical know-how and support. We activate your ideas.

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