



ROBBA

Trusted partner
in metal

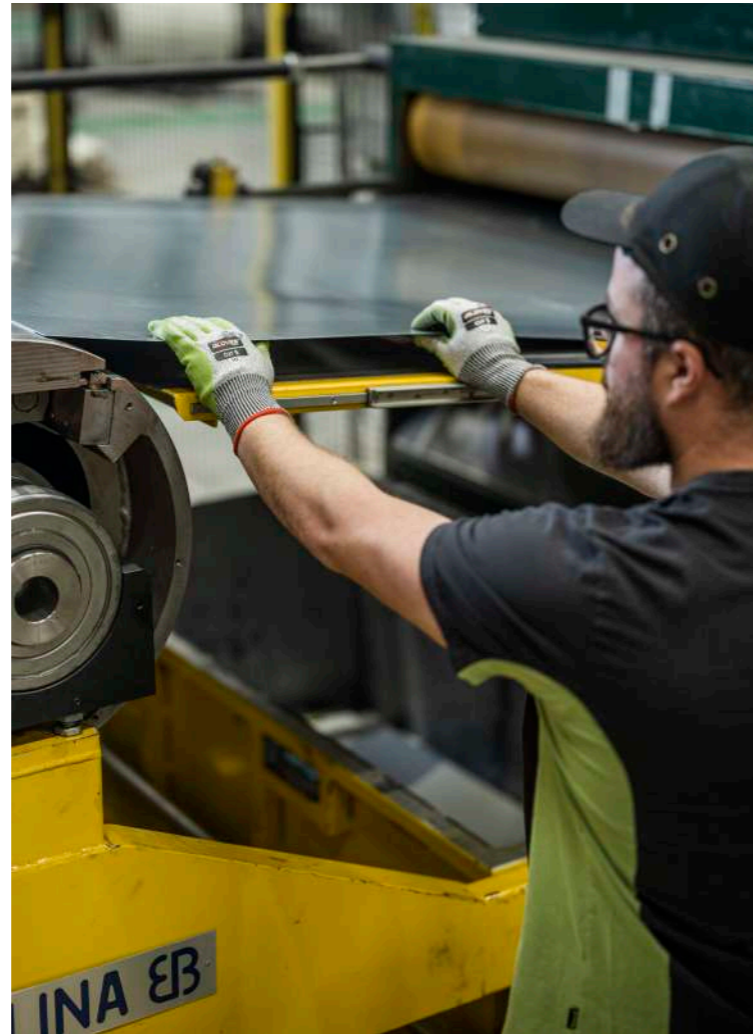
High Performance
Alloys (HPA)

High Performance Alloys (HPA) at Roba Metals

Specialist in flat, low-stress high-performance plates for industries with high standards

Roba Metals supplies high-quality High Performance Alloys, also known as superalloys or high-temperature alloys, for applications in the petrochemical, energy, furnace construction and machine building industries, among others.

Our plates are low-stress, flat and available from stock, enabling you to produce quickly and efficiently. Thanks to our strong logistics, we serve the whole of the United Kingdom, Belgium, Germany and France with short delivery times.



What are High Performance Alloys?

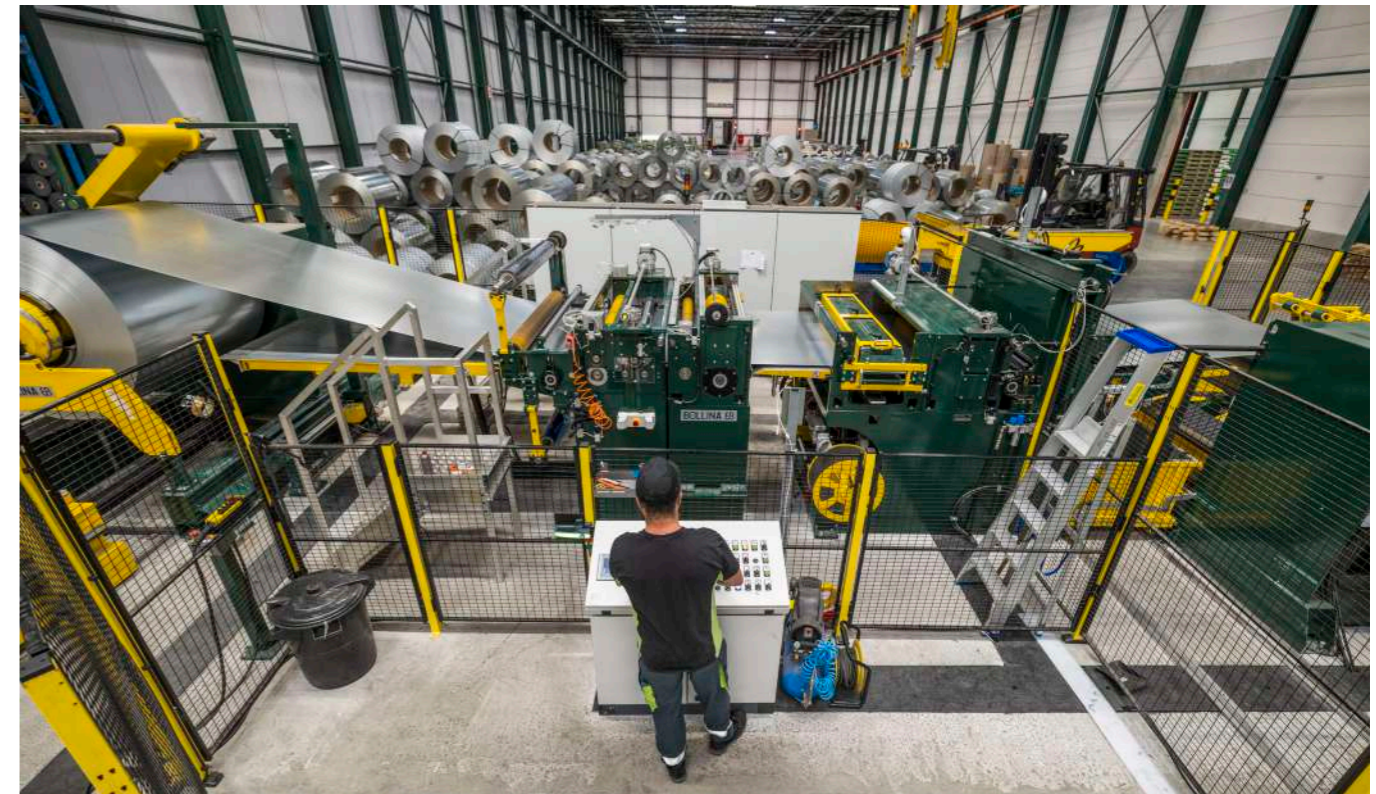
High Performance Alloys are high-quality stainless steel alloys that have been specially developed for extreme conditions. Think of applications with high temperatures, aggressive chemicals or heavy mechanical loads. Where standard stainless steel grades such as 304 or 316 are no longer sufficient, these alloys offer the solution.

For maximum reliability and performance. Anytime, anywhere.

Applications of High Performance Alloys

High Performance Alloys are used in environments where maximum performance and reliability are essential. These include environments and applications such as:

- Chemical industry for tanks, pipes and process components
- Offshore and maritime for piping and support structures
- Aerospace for nickel and titanium alloys and landing gear
- Semiconductor industry for precision components
- Armour, structural elements and components for defence
- Furnace construction and heat-resistant components
- Waste processing and boiler construction for flame zones and flue gas treatment
- Mechanical engineering for components under high stress or temperature
- Medical industry for implants and prostheses



Our capabilities

Supply and service of all High Performance Alloys

Roba Metals has a range of these high-quality alloys in stock. We deliver your order from our warehouse within 24 hours throughout the United Kingdom, the rest of the Benelux, Germany and France.

Our specialists will be happy to advise you on choosing the right material. If you are looking for specific materials in stainless steel, duplex, nickel or titanium, please feel free to contact us to discuss the possibilities. We will be happy to give you personal advice.

Your partner

For all hard-to-find materials and service for all branches of industry.

- Available directly from stock (24 hours)
- Framework agreements possible (material on demand)
- With an EDI link, you can order digitally from your own ERP system
- Pallet Return Service
- Processing options from our Roba Metals Service Centres
- Recycling of materials
- Own lorries



Delivery of High Performance Alloys

We deliver your order from stock within 24 hours. In addition to standard commercial sizes, we can also supply customised plates. We have ample stocks, enabling us to deliver the material quickly.

We are convinced that flexibility ensures long-term partnerships. Our account managers always work with you to find the best solution for your needs. Please feel free to contact us to enquire about your options.

Certification

Our stainless steel products are certified according to EN 10204-3.1 and, where applicable, EN 10204-3.2. Our factories and partners are EN-ISO 9001 and PED certified.

Our specialisms

- Acid and corrosion-resistant stainless steel
- Heat-resistant stainless steel
- Nickel alloys
- Titanium alloys
- Regular stainless steel

Delivery programme



Delivery programme

Qualities of sheet steel and steel strip

Overview of our high-quality alloys

Material name	Material number	UNS no. nr
Lean Duplex	1.4162	S32101
Lean Duplex	1.4362	S32304
Super Duplex	1.4410	S32750
Duplex	1.4462	S31803
AISI 409	1.4512	S40900
AISI 926	1.4529	N08926
AISI 904L	1.4539	N08904
254 SMO	1.4547	S31254
RVS 316Ti	1.4571	S31635
Sicromal 8	1.4713	S41500
X10CRALSI13	1.4724	Z13C13
AISI 442	1.4742	S44200
AISI 446	1.4762	S44600
RVS 309	1.4828	S30900
AISI 309S	1.4833	S30908
253MA	1.4835	S30815
RVS 310	1.4841	S31400
RVS 310S	1.4845	S31008
AISI 321H	1.4878	S32109

Delivery programme

Acid and corrosion resistant stainless steel

Duplex: stainless steel for extreme conditions

Duplex has a ferritic-austenitic microstructure. The material combines many of the favourable properties of ferritic and austenitic stainless steel. Its higher mechanical strength makes it possible to construct with thinner material, thereby reducing costs.

Other characteristic properties of Duplex are: very good wear and corrosion resistance, good fatigue resistance and low thermal expansion. It also has good weldability. Due to its high corrosion resistance, Duplex is used in the petrochemical and offshore industries. We have a very large stock of plates with material number 1.4462/UNS S31803 as standard.

Advantages

- Good wear and corrosion resistance
- High resistance to stress corrosion
- Good fatigue resistance
- Low thermal expansion
- Good weldability

Specifications

- Available in various standard dimensions. Customisation is also possible (cut to length up to 12.6 m).
- Plates up to 120 mm thick are available from stock.
- Grades: Duplex, Super Duplex and Lean Duplex.

Used in, among others:

- Chemical industry & petrochemicals
- Maritime & offshore industry
- Oil and gas sector
- Food industry
- Pharmaceutical industry
- Water treatment & desalination
- Energy and power plants
- Building & construction
- Machine building & heavy industry

The combination of strength & corrosion resistance.

Delivery programme

Heat-resistant stainless steel

Heat-resistant stainless steel

Heat-resistant stainless steel is used in environments where materials are exposed to high temperatures for long periods or repeatedly. Within this group, stainless steel 310S is one of the most commonly used grades. This austenitic stainless steel variant has high creep strength and excellent oxidation resistance up to approximately 1050 °C. Stainless steel 310S is the low-carbon version of stainless steel 310/314, which ensures better formability and weldability. The alloy is widely used in flare tips, combustion chambers and applications in the food processing industry, among other things. Our own stock of 310S sheet material is also unique in the United Kingdom.

In addition to 310S, 253MA is also widely used in the heat-resistant austenitic grades segment. This alloy is known for its excellent oxidation and creep resistance, especially under cyclic temperature conditions, and can be used at temperatures around 1150 °C. This makes 253MA a valuable alternative for situations where higher temperature resistance or extra mechanical stability is required.

Advantages

- Better formability and weldability compared to 304/314.
- Our stock is unique in the Netherlands.

Used in, among others:

- Metallurgy & heat treatment
- Chemical industry & petrochemicals
- Waste incineration & environmental technology
- Energy generation

Specifications

- Available in various standard dimensions. Customisation is also possible.
- Plates up to 120 mm thick are available from stock.
- Plate grades: 310S/H-1485 UNS S31008 & 253MA/1.4835 UNS S30815.
- On request, we also supply heat-resistant stainless steel as seamless pipe, round bar and flat bar.

Grades		
310S/H-1.4845 UNS S31008	ASTM A 240 / ASME SA 240	SEW 470
253MA/1.4835 UNS S30815	ASTM A 240 / ASME SA 240	X9CrNiSiNc21-11-2

Delivery programme

Other alloys

Nickel alloys

Alloy 200 - 2.4066 UNS NA2200	Alloy 201 - 2.4068 UNS O2201	Alloy 400 - 2.4360 UNS N04400	Alloy K500 - 2.4375 UNS N05500	Alloy 600 - 2.4816 UNS N06600
Alloy 601 - 2.4851 UNS N06601	Alloy 602CA - 2.4633 UNS N06025	Alloy 617 - 2.4663 UNS N06617	Alloy 625 - 2.4856 UNS N06625	Alloy 718 - 2.4668 UNS N07718
Alloy 800H - 1.4876H UNS N08810	Alloy 800 HT - 1.4876HT UNS N08810	Alloy 825 - 2.4858 UNS N08825	Alloy C4 - 2.4610 UNS N06455	Alloy C276 - 2.4819 UNS N10276
Alloy C22 - 2.4602 UNS N06022	Alloy 59 - 2.4605 UNS N06059	Alloy X - 2.4665 UNS N06002		

Titanium alloys

Grade 1	Grade 2	Grade 5	Grade 5 Eli	Grade 7
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Other special alloys

AISI 430 - 1.4016 UNS S43000	1.4713	1.4724	1.4742	AISI 446 - 1.4762 UNS S44600
AISI 309 - 1.4828 UNS S30900	AISI 309S - 1.4833 UNS S30908	AISI 310/314 - 1.4841 UNS S31000/S13400	1.4835 UNS S30815	AISI 321H - 1.4878 UNS S32109



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