



Langley Alloys

Your partner for
the supply of
high-performance alloys



#thehomeofsuperduplex

We offer the most complete selection of duplex and super duplex stainless steels, from ½" to 20" diameter bars available.

As the inventor of super duplex stainless steel alloys, Langley Alloys has a rich history with this family of high-performance metals. Ferralium® 255-SD50 was invented by us in 1969, and 50 years later still provides increased strength and corrosion resistance over alternative alloys.

Langley Alloys are Sandvik's distribution partner for their duplex and super duplex stainless steels. With the most comprehensive stock range, in up to 40 different sizes, plus direct access to production schedules, we can match or exceed the availability of mill distributors.



Ferralium® 255-SD50	UNS 32550	F61	1.4507
32760	UNS 32760	F55	1.4501
SAF2507®	UNS 32750	F53	1.4410
SAF2205® (Sanmac® 2205)	UNS 32205 / S31803	F51 / F60	1.4462



*The Home of
Super Duplex*

Unique alloys

Langley Alloys has a proud history of developing new alloys. As a company that can trace its roots back to 1938, we have been responsible for the invention of many unique alloys.

Ferralium® 255 was the first super duplex stainless steel. It was patented in the 1960's and launched in 1969, long before the alternative S32750 and S32760 were available. Continued development means it is still the only super duplex to achieve 85ksi yield strength, and a 2.0% copper content enhances corrosion resistance in sea water, chlorine solutions and many acids.

Hiduron® 130 is the highest-strength copper nickel alloy available, and combines a great many favourable properties such as resistance to corrosion, galling and fouling. It is widely used in subsea applications including connectors and stab plates, bearing housings and fasteners.

Ferralium® 255-SD50	UNS 32550	F61	1.4507
Hiduron® 130		DTD 900/ 4805	2.1504
Hiduron® 191	NES835	DEFSTAN 02-835	
Hidurel® 5	UNS S64700	DTD 498	2.0855
Fermonic® 50	UNS S20910	XM-19	1.3964


Nickel alloys

Significant investments in our stock means that we hold an attractive range of nickel alloys suited to applications requiring high strength and high corrosion resistance.

Alloy K-500 has been a speciality of Langley Alloys for many years, tracing back to our history as a copper foundry when casting our own ingots.

Alloys 718, 625 and 825 are popular alloys for Oil & Gas related markets, and our stock range provides a competitive offer in the most popular sizes.

Alloys 725 and 925 offer higher strength than their 625 and 825 basis points. We stock these harder-to-find alloys in relevant bar sizes.



Alloy K-500		BS3076 NA18	2.4375
Alloy 718	UNS N07718		2.4688
Alloy 625	UNS N06625	BS3076 NA21	2.4856
Alloy 725	UNS N07725		
Alloy 825	UNS N08825	BS3076 NA16	2.4858
Alloy 925	UNS S09925		

4 Pipe packages

Although best known for our bar and plate distribution, Langley Alloys are able to provide a competitive offer for your pipe package requirements, including flanges, fittings and associated components.

Making use of our mill partnerships, in-house inspection and expertise, we are well-placed to co-ordinate the supply of packages across all alloys, but our strength in super duplex and nickel alloys makes us an obvious choice for such challenging projects.



Hollow Bar

Why start machining from a solid bar if you can use a near-net shape hollow bar ?

Hollow bars allow machinists to significantly increase productivity, reducing the time needed to remove material from parts with a large internal diameter.

This approach is particularly appropriate for the manufacture of mechanical seals, valve bodies, flowmeters, pumps and associated components for the oil and gas sector.

We are stocking more than 80 standard sizes in Sanmac® 316L.

As Sandvik's distribution partner for hollow bar, we are working together to develop opportunities in duplex and higher grades, which are being added to our stock programme.



Bored Bar and 1st Stage Machining

Our Deep Hole Borer is the perfect complement to our stock of solid and hollow bars.

Rather than having to machine a central bore on individual components, we can bore holes up to 200mm in diameter and >2m in length in a single, fast and efficient process.

If you are looking for a hollow bar, but in a unusual size, particular alloy or small quantity then a bored bar overcomes the limitations of mill production – with one-offs possible on short lead times, rather than larger minimum order quantities on extended production cycles.

Our 1st stage machining capability has been developed to support our customers, allowing you to focus on the more complex finish machining operation. It is best-suited to large volumes of relatively simple machining, where we can optimise the supply of metal and machining.



7 Inspection



Demanding applications often require increased levels of testing, inspection and certification. Langley Alloys can provide a complete service using our in-house capabilities and highly-trained team.

Ultrasonic (UT) inspection can be performed to many different specifications, beyond that provided by the original mill certificate. Our team are qualified to PCN Level II and ASNT Level II and have many years of experience in testing bars and forgings.

Dye Penetrant (DP) inspection can be offered for forged components or 1st stage machined parts. All inspectors are qualified to PCN Level II and ASNT Level II.

Chemical composition is provided on standard 3.1 mill test certificates, but we can provide additional confirmation using our calibrated PMI analyser and associated certification.

3.2 Witness inspection is undertaken on a near-daily basis. TUV, Lloyds and other leading inspection authorities are regular visitors to our facility.

Expertise

Langley Alloys stands apart from other distributors for many of the reasons previously shared. Unique alloys. In-house testing. 1st stage machining. However, the expertise within our team is the key differentiator for our customers.

Our Metallurgists and Engineers can support your material selection challenges, review detailed specifications and arrange additional testing, inspection and certification.

Our Purchasing and Sales colleagues can help you to source even the most difficult products and specifications.

Our Operations and Logistics colleagues manage call-off and consignment arrangements, prompt delivery of cut pieces and a choice of packaging.

Our colleagues in the USA offer a stock of super duplex stainless steels in plate, pipe and fittings and can organise packages of materials.





Langley Alloys



Langley Alloys was founded in 1938 from the special copper alloys division of High Duty Alloys. During the 1970's the company employed over 500 people in metals manufacture including casting, rolling, forging and fabrication, as well as a successful valve design and production division on a site at Langley in West London.

We are responsible for the development of several significant alloy types: the high strength Naval alloy Hiduron®, the copper bearing alloy, Hidurel® 5 (used as a major engine bearing on the Spitfire aircraft) and the very first super duplex stainless steel Ferralium® 255.

Today, Langley Alloys are a specialist distributor of high-performance metals from sites in the United Kingdom, United States and Singapore.

Unique metals for your demanding applications

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**Super-Duplex
Duplex
Stainless
Copper Alloys
Nickel Alloys**

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