



Delivering Speciality Alloys



www.neonickel.com

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Welcome

NeoNickel is a leading European supplier and processor of bespoke nickel alloys, titanium alloys and speciality materials with corrosion resistance, heat resistance, high strength and other critical properties for use where integrity of performance and unique properties are essential.

We offer complete supply chain solutions from turnkey packages, through just in time schedules, to single stock items. We provide a fast and accurate service that challenges industry expectations. Whether you have an urgent requirement or need same-day or next day delivery, NeoNickel delivers.

For more information on our alloys or services contact us today!

Visit Our Website



Visit the NeoNickel website on your laptop, tablet or mobile phone.

Get up to date with our alloys, processing, services and all the latest news at NeoNickel. Download our data sheets and technical information at **www.neonickel.com**

Introducing the NeoNickel App...



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Access technical data and resources on all of our metal alloys using our new App.



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Products and Services

Product Forms

- Plate
- Sheet
- Coil
- Bar
- Pipe
- Tube
- Fittings
- Flanges
- Welding Consumables
- Added Value Components
- Machined Components
- Valve Seats
- Precision Ground Bar & Shafts

Processing

- Laser
- 2D Laser Inspection
- Waterjet
- Guillotine
- Bar Saw
- Plate Saw
- Metal Spinning
- Positive Material Identification

In addition to the wide range of alloys and product forms available from stock, our Sheffield Conversion Centre can now offer a range of items produced by:

- Open and Closed Die Forging
- GFM Forging
- Rolling
- Heat Treatment
- Machining / Grinding

Qualified metallurgists control all processing, inspection, mechanical and corrosion testing and NDT.

Sheffield Conversion Centre

NeoNickel operates a metal conversion centre. With a team of qualified metallurgists we can offer a complete range of forged, heat treated and tested machined components. This is supported by detailed production plans, mechanical, corrosion and non destructive testing coupled with final inspection plans.

Services

- Open & Closed Die Forging
- GFM Forging (round, square or rectangular bar)
- Ring Rolling
- Heat Treatment
- Machining / Grinding
- Hot Rolled and Cold Drawn Bar

Material Forms





Markets Served

NeoNickel is the European leader in providing high performance speciality alloys to a diverse range of industries.

Selecting the right alloy is more than just choosing from a list of features. You need an alloy supplier that understands the unique needs and challenges of your specific market.

We specialise in providing alloy solutions to our customers in a wide variety of markets including: Aerospace, Power Generation, Oil & Gas, Petrochemicals & Refineries, Thermal Processing, Chemical Processing, Pharmaceutical & Bio Synthetics and Motorsport.

Our expert team can help you find the exact alloy solution to fit your requirements.

Download our data sheets and information at www.neonickel.com

Aerospace

NeoNickel is a European supplier of speciality aerospace alloys for commercial aviation, defence and space exploration. Our comprehensive inventory includes a diverse mix of nickel alloys, cobalt alloys, titanium alloys, stainless and alloy steels.

NeoNickel holds many quality approvals from prominent aerospace companies, so we understand the need for precision when it comes to your aerospace alloys. NeoNickel is a registered ISO 9001:2008, AS 9100 REV C and AS 9120 REV A company.

Our network of partners work together to provide material with the quality you require and service you deserve. We offer a complete spectrum of alloys in plate, sheet, bar, pipe, forgings and welding materials.

Power Generation

Our high performance alloys are used in the most demanding applications within the power industry including: coal fired power plants, combined cycle power plants, nuclear power plants, flue gas desulphurisation (FGD) plants, energy recovery units and renewable energy plants.

Materials used in power station boiler applications are selected for the creep strength and high temperature corrosion resistance. NeoNickel alloys include: 253MA, 310, RA330®, 600, 601 & 800H/HT. Many of our alloys are used in the construction of pollution control systems such as absorbers, agitators, centrifuges, slurry pumps, wet electrostatic precipitators. In flue gas desulphurisation plants NeoNickel supply corrosion resistant metallic linings for the outlet ductwork, dampers, damper seals and chimneys. Alloys include 22, C276, 625, Ti Gr2, ZERON® 100 and AL-6XN®.

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Oil & Gas

As Europe's leading speciality metals company we offer an extensive inventory of nickel alloys, duplex and super duplex alloys, super austenitic and titanium alloys in a variety of shapes and forms to meet the most demanding environments.

NeoNickel's alloys include: ZERON® 100, 2205, AL-6XN®, 400, K500, 625, 718API, 725, 925, Ti Gr2 and Ti Gr5.

NeoNickel's approach sets the industry standard by offering reliable service, superior oil and gas alloys coupled with unmatched expertise. We also offer in-depth knowledge of material specifications, supply chain management and metallurgical expertise. We can bring your project from initial concept design to delivered product.

Petrochemicals & Refineries

We offer complete supply chain solutions from, turnkey packages to JIT schedules to a single stock item.

NeoNickel's materials stocked include a complete range of products in bespoke corrosion resistant and high temperature materials used in the Petrochemicals and Refineries markets for the construction of process plants.

NeoNickel's alloys include: C276, 22, RA330®, 253MA, 602CA, 600, 601, 800H/HT and ZERON® 100.

We offer complete supply chain solutions from, turnkey packages to JIT schedules to a single stock item.

Thermal Processing

Our thermal processing alloys are used for bar frame baskets, corrugated shrouds and other fixtures that carry the parts to be heat treated into and out of the furnace. Inside the furnaces, our alloys are used for radiant tubes, fans, muffles, inner covers, belts, etc.

Our alloys are commonly used in a variety of heat treating operations including: annealing, ageing, calcining, vacuum treating, metal hardening, nitriding, carburizing and molten salt baths.

NeoNickel's alloys include: RA330®, 310S, 321, 253MA, 600, 601, 800H/HT and 602CA.

Chemical Processing

NeoNickel is a supplier and processor of bespoke corrosion resistant alloys for both aqueous and high temperature corrosion environments. We understand the performance requirements expected from alloys used in the chemical processing industry.

Along with our diverse inventory mix, NeoNickel also employs engineers who work in our metallurgical laboratory for material testing and can provide performance analysis, technical investigations and electronic test reports.

NeoNickel's alloys include: C276, 22, B2, ZERON® 100, AL-6XN®, 20, 200/201, 400, 625, 825 and Ti Gr2.

Pharmaceutical & Bio Synthetics

NeoNickel supplies and processes a range of bespoke corrosion resistant alloys for the pharmaceutical and bio synthetic markets.

NeoNickel's materials stocked include a complete range of products which are widely used in the Pharmaceutical and Bio Synthetic markets for the construction of multi-purpose process plants.

NeoNickel's alloys include: 22, C276, AL-6XN® and Ti Gr2.

Motorsport

As leading suppliers to the motorsport market we understand the unique challenges of this high octane industry.

With the motorsport sector constantly evolving with increased complexity of requirements and technological advances the need for high performance alloys is more important than ever, whilst the demand for quick turnaround is ever present.

Taking advantages of the latest metallurgical developments, industry leading software and our high skilled and experienced team our abilities are regularly put to the test as we constantly endeavour to exceed customer expectations in one of the world's prestige markets.

NeoNickel's alloys include: 625DDQ/HP, 718, Ti 6AL-4V, Ti 6-2-4-2 and Ti 6-2-4-6.

State of the Art Metallurgical Services

NeoNickel has been serving customers with unrivalled metal profiling at our state of the art facilities. These facilities cope with the most demanding of requirements, producing superior materials and utilising the unmatched expertise and in-depth knowledge of our metallurgists. Our state of the art metallurgical services provide clients with a full range of professional assistance.



Laboratory Services

- Customer support in developing applications including corrosion testing and metallography
- Customer support in the provision of technical investigations and information on failure analysis
- Independent product quality testing capability

Value Added Components

NeoNickel offers value added components including machined parts to customer's drawings (precision ground shafts) and spun components (valve seats).



Alloy Index – Standards

Alloy	UNS No.	W.Nr. No.	Standards	Pg
NICKEL ALLOYS				
RA330®	N08330	1.4886	ASTM B511,B512,B535,B536, B546, B710, B739,AMS 5592, 5716, B829, B726	8
RA333®	N06333	2.4608	ASTM B718, B719, B722, B723,AMS 5593,5717	8
602CA	N06025	2.4633	ASTM B166, B168, B163, B167, B462, B517, B546, B564, B366	8
600	N06600	2.4816	ASTM B163,B166,B167, B168, B516, B517,B564,B366, AMS 5540,5665, B751, B775, B829	8
601	N06601	2.4851	ASTM B163,B166, B167,B168, B564, AMS 5715, 5870, B751, B775, B829	8
800H/HT	N08810 N08811	1.4876 1.4958, 1.4959	ASTM B163, B407, B408, B409, B515, B564, B366 AMS 5766, 5871, B751, B775 & B829	8
36	K93603	1.3912	AFNOR NF A54-301, ASTM F 1684-06	8
20	N08020	2.4660	ASTM A240, B463, B473, B366, B464, B468, B462, B729, B775	9
22	N06022	2.4602	ASTM B564, B574, B575, B619, B622, B626, B366, B462, B775	9
C276	N10276	2.4819	ASTM B564, B574, B575, B619, B622, B626, B366, B462, B775	9
59	N06059	2.4605	ASTM B564, B574, B575, B619, B622, B626, B366, B462, B775	9
B2	N10665	2.4617	ASTM B333, B335, B564, B619, B622, B626, B366, B462 , B775	9
B3	N10675	2.4600	ASTM B333, B335, B564, B619, B622, B626, B366, B462, B775	9
200/201	N02200 N02201	2.4066 2.4068	ASTM B160, B161, B162, B163, B564, B725, B730, B366, B751, B775, B829	9
400	N04400	2.4630	ASTM B127,B163, B164,B165,B564, B725, B730,B366 AMS 4675, 4730, AMS 4544, 4731	10
K500	N05500	2.4375	ASTM B865, AMS 4676	10
625 / 625LCF	N06625	2.4856	ASTM B443,B444, B446, B704, B705, B366, B751,B775, B829, AMS 5599, 5666, 5837, 5879, 5869, 5581	10
718	N07718	2.4668	ASTM B637, B670, AMS 5596, 5662, 5663, 5832	10
718 API	N07718	2.4668	NACE MR0175	10
725	N07725		ASTM B805. NACE MR0715	11
825	N08825	2.4858	ASTM B163, B423, B424, B425, B564, B704, B705, B366, B751, B775, B829	11
925	N09925		NACE MR0175	11
X750	N07750	2.4669	ASTM B637, AMS 5542,5598, 5670, 5671, 5247	11
230	N06230	2.4733	ASTM B435, B564, B572, B619, B622, B626, B366, AMS 5878, 5891	11
75	N06075	2.4951/ 2.4630	ASTM B637 MSRR 7004, 7022, 7063, 7070, 7162, 7193, 7952 BS: HR 203, 3HR1, HR3, HR4, B54HR 601	11
80A	N07080	2.4952/ 2.4631		11
90	N07090	2.4632/ 2.4969		12
105		2.4634		12
86			MSRR 7141. BS HR100	12
617	N06617	2.4663	ASTM B166, B168, B546, B564, AMS 5887, 5888, 5889	12
PE11/PE16/PK33			MSRR 7070, 7952, 7181, 7182, 7166, 7195	12
Alloy X	N06002	2.4665	ASTM B435,B572, AMS 5536, 5754, 5798	13
C263	N07263	2.4650	AMS 5966,5886,5872, 5872E, MSRR 7035, BS HR10	13
Waspaloy	N07001	2.4654	AMS 5544, 5828, 5708	13
RENE 41	N07041	2.4973	AMS 5545,5712, 5713,5800	13

Alloy	UNS No.	W.Nr. No.	Standards	Pg
COBALT ALLOYS				
L605/25	R30605	2.4964	AMS 5537, 5796	13
MP35N	R30035		AMS 5844, 5845	13
188	R30188	2.4683	AMS 5608, 5801, AMS 5772	13
694 (CM-64)			GE: B58AB42B	
TRIBALLOY® T-800®			GE: B50TF193S6	
DUPLEX / SUPER DUPLEX ALLOYS				
2205	S31803, S32205	1.4462	ASTM A240, A276, A479, A790, A928, A182, A789, (Grade F51) Norsok	14
ZERON® 100	S32760	1.4501	ASTM A182, A240, A276, A314, A473, A479, A815, A790, A928, (Grade F55) Norsok	14
STAINLESS STEEL ALLOYS				
AL-6XN®	N08367		ASTM A182, A240,A249, A276, A312, A479, B462, B472, B564, B675, B676, B688, B690, B691, B366, B804	14
A286	S66286	1.4980, 1.4943, 1.4944	AMS 5525, AMS 5732, AMS 5804, BS HR100, BS HR51, M6RR6531, 6532, ASTM A453, A638, AMS 5526, 5731, 5734, 5737	14
PH13-8Mo	S13800	1.4534	ASTM A564, AMS 5629	14
15-5PH	S15500	1.4545	ASTM A564, A693, A705	14
17-4PH	S17400	1.4542 / 1.4548	ASTM A693, A564, A705, AMS 5604, 5622, 5643, 5825	15
310S	S31008 / S31009	1.4845	ASTM A240, A276, A312, A479, AMS 5521, 5651	15
321	S32100	1.4541	ASTM A240, A276, A312, A479, AMS 5510, 5645	15
253MA	S30815	1.4835	ASTM A182, A240, A276,A312, A479	15
Nitronic 50(XM-19)	S20910	1.3964	ASTM A193, A194,A262,A276,A479, AMS 5764	16
Nitronic 60	S21800		ASTM A193, A194, A262, A276, A479. AMS 5848	16
Maraging 250/300/350	K92890 K93120 K93160	1.6359 1.6354 / 1.6358 1.6356	AMS 6514,6512,6515, S162. Mil S- 46850	15
Aeromet 100	K92580		AMS 6532	16
ALLOY STEELS				
15CDV6		1.7734	15CrMoV6	16
300M / S155			4340M, AMS 6257,6417,6419	16
S156		1.5722 / 1.6733	BS S156 1976, BS S82	16
S99G			BS S99	17
TITANIUM ALLOYS				
Ti Gr2	UNS R50400	3.7034 / 3.7035	ASTM B265, 348,381, 363, B337,B338	17
Ti Gr4	R50700	3.7065	ASTM B265,348,381	17
Ti Gr5 6AL-4V	R56400	3.7164 / 3.7165	ASTM B265,348, 381,363. MSRR8610, 8614. 8652, AMS 4911, 4920, 4928, 4934, 4935, 4965, 4967, 6930, 6931,6931B, B337,B338	
Ti 6-2-4-2	R56421	3.7164	AMS 4919, 4952, 4975, 4976, 4979, MIL T-9046 & T-9047.	17
Ti 6-2-4-6	R56260	3.7164	AMS 4981, MIL T- 9047	17

Table of Alloys

NICKEL ALLOYS

RA330®											Bar	Sheet	Plate	Pipe	Fittings	Flanges	Billet	Wire
UNS N08330				W.Nr. 1.4886							√	√	√	√				√
	Ni	Cr	Cu	C	Mn	Si	P	S	Fe									
MIN	34	18	0	0	0	1	0	0	BAL									
MAX	37	20	1	0.08	2	1.5	0.03	0.03	BAL									

RA333®											Bar	Sheet	Plate	Pipe	Fittings	Flanges	Billet	Wire
UNS N06333				W.Nr. 2.4608									√					√
	Ni	Cr	Mo	W	Co	C	Mn	Si	Fe									
MIN	44	24	2.5	2.5	2.5	0	0	0.75	BAL									
MAX	47	27	4	4	4	0.08	2	1.5	BAL									

602CA											Bar	Sheet	Plate	Pipe	Fittings	Flanges	Billet	Wire
UNS N06025				W.Nr. 2.4633							√	√	√					√
	Ni	Cr	Cu	C	Mn	Si	Y	Fe	Ti	Al	Zr							
MIN	BAL	24	0	0.15	0	0	0.05	8	0.1	1.8	0.01							
MAX	BAL	26	0.1	0.25	0.15	0.5	0.12	11	0.2	2.4	0.1							

600											Bar	Sheet	Plate	Pipe	Fittings	Flanges	Billet	Wire
UNS N06600				W.Nr. 2.4816							√	√	√	√	√			√
	Ni	Cr	Cu	C	Mn	Si	S	Fe										
MIN	72	14	0	0	0	0	0	6										
MAX		17	0.5	0.15	1	0.5	0.015	10										

601											Bar	Sheet	Plate	Pipe	Fittings	Flanges	Billet	Wire
UNS N06601				W.Nr. 2.4851							√	√	√	√				
	Ni	Cr	Cu	C	Mn	Si	S	Fe	Al									
MIN	58	21	0	0	0	0	0	BAL	1									
MAX	63	25	1	0.1	1	0.5	0.015	BAL	1.7									

800H/HT											Bar	Sheet	Plate	Pipe	Fittings	Flanges	Billet	Wire
UNS N08810 - UNS N08811				W.Nr. 1.4876, 1.4958 - 1.4959							√	√	√	√	√	√		
	Ni	Cr	Cu	C	Mn	Si	P	S	Fe	Al	Ti	Al +Ti						
MIN	30	19	0	0.06	0	0	0	0	39.5	0.15	0.15	0.85						
MAX	35	23	0.75	0.1	1.5	1	0.045	0.015		0.6	0.6	1.2						

36											Bar	Sheet	Plate	Pipe	Fittings	Flanges	Billet	Wire
UNS K93600 - UNS K93603				W.Nr. 1.3912							√	√	√					√
	Ni	Cr	Mo	Cu	C	Mn	Si	P	S	Fe								
MIN	35	0	0	0	0	0	0	0	0	BAL								
MAX	37	0.5	0.5	0.5	0.1	0.6	0.35	0.025	0.025	BAL								

Table of Alloys

NICKEL ALLOYS

20											Bar	Sheet	Plate	Pipe	Fittings	Flanges	Billet	Wire
UNS N08020				W.Nr. 2.4660							√	√	√					
	Ni	Cr	Mo	Cu	C	Mn	Si	P	S	Fe	Nb+Ta							
MIN	32.5	19	2	3	0	0	0	0	0	BAL	8 x C							
MAX	35	21	3	4	0.06	2	1	0.035	0.035	BAL	1							

22											Bar	Sheet	Plate	Pipe	Fittings	Flanges	Billet	Wire
UNS N06022				W.Nr. 2.4602							√	√	√	√	√	√	√	√
	Ni	Cr	Mo	W	Co	C	Mn	Si	P	S	Fe	V						
MIN	BAL	20	12.5	2.5	0	0	0	0	0	0	2	0						
MAX	BAL	22.5	14.5	3.5	2.5	0.015	0.5	0.08	0.02	0.02	6	0.35						

C276											Bar	Sheet	Plate	Pipe	Fittings	Flanges	Billet	Wire
UNS N10276				W.Nr. 2.4819							√	√	√	√	√	√	√	√
	Ni	Cr	Mo	W	Co	C	Mn	Si	P	S	Fe	V						
MIN	BAL	14.5	15	3	0	0	0	0	0	0	4	0						
MAX	BAL	16.5	17	4.5	2.5	0.01	1	0.08	0.04	0.03	7	0.35						

59											Bar	Sheet	Plate	Pipe	Fittings	Flanges	Billet	Wire
UNS N06059				W.Nr. 2.4605							√	√	√	√	√	√		
	Ni	Cr	Mo	Co	C	Mn	Si	P	S	Fe	Al	Cu						
MIN	BAL	22	15	0	0	0	0	0	0	0	0.1	0						
MAX	BAL	24	16.5	0.3	0.01	0.5	0.1	0.015	0.005	1.5	0.4	0.50						

B2											Bar	Sheet	Plate	Pipe	Fittings	Flanges	Billet	Wire
UNS N10665				W.Nr. 2.4617							√							
	Ni	Cr	Mo	Co	C	Mn	Si	P	S	Fe								
MIN	BAL	0	26	0	0	0	0	0	0	0								
MAX	BAL	1	30	1	0.02	1	0.1	0.04	0.03	2								

B3											Bar	Sheet	Plate	Pipe	Fittings	Flanges	Billet	Wire
UNS N10675				W.Nr. 2.4600							√							
	Ni	Cr	Mo	W	Cu	Co	C	Mn	Si	P	S	Fe	Ti	Al	V	Zr	Nb	Nb+Ta
MIN	65	1	27	0	0	0	0	0	0	0	0	1	0	0.1	0	0	0	0
MAX		3	32	3	0.5	3	0.01	3	0.1	0.03	0.01	3	0.2	0.5	0.2	0.1	0.2	0.4
Ni + Mo		94 to 96%																

200/201											Bar	Sheet	Plate	Pipe	Fittings	Flanges	Billet	Wire
UNS N02200 UNS N02201				W.Nr. 2.4066, 2.4068							√	√	√	√	√	√		
	Ni	Cu	Mn	Si	S	Fe	C											
MIN	99	0	0	0	0	0	0											
MAX		0.25	0.35	0.35	0.01	0.40	0.15											

Table of Alloys

NICKEL ALLOYS

400											Bar	Sheet	Plate	Pipe	Fittings	Flanges	Billet	Wire
UNS N04400				W.Nr. 2.4360							√	√	√	√	√	√		
	Ni	Cu	C	Mn	Si	S	Fe											
MIN	63	28	0	0	0	0	0											
MAX	70	34	0.3	2	0.5	0.024	2.5											

K500											Bar	Sheet	Plate	Pipe	Fittings	Flanges	Billet	Wire
UNS N05500				W.Nr. 2.4375							√							
	Ni	Cu	C	Mn	Si	S	Fe	Ti	Al									
MIN	63	27	0	0	0	0	0	0.35	2.3									
MAX	70	33	0.25	1.5	0.5	0.01	2	0.85	3.15									

625											Bar	Sheet	Plate	Pipe	Fittings	Flanges	Billet	Wire
UNS N06625				W.Nr. 2.4856							√	√	√	√			√	√
	Ni	Cr	Mo	Co	C	Mn	Si	P	S	Fe	Ti	Al	Nb+Ta					
MIN	58	20	8	0	0	0	0	0	0	0	0	0	3.15					
MAX		23	10	1	0.1	0.5	0.5	0.015	0.015	5	0.4	0.4	4.15					

625LCF (DDQ/HP)											Bar	Sheet	Plate	Pipe	Fittings	Flanges	Billet	Wire
UNS N06626				W.Nr. 2.4856								√						
	Ni	Cr	Mo	Co	C	Mn	Si	P	S	Fe	Ti	Al	Nb+Ta	N				
MIN	58	20	8	0	0	0	0	0	0	0	0	0	3.15	0				
MAX		23	10	1	0.03	0.5	0.15	0.015	0.015	5	0.4	0.4	4.15	0.02				

718											Bar	Sheet	Plate	Pipe	Fittings	Flanges	Billet	Wire
UNS N07718				W.Nr. 2.4668							√	√	√					√
	Ni+Co	Cr	Mo	Cu	Co	C	Mn	Si	P	S	Fe	Ti	Al	Nb+Ta				
MIN	50	17	2.8	0	0	0	0	0	0	0	BAL	0.65	0.2	4.75				
MAX	55	21	3.3	0.3	1	0.08	0.35	0.35	0.015	0.015	BAL	1.15	0.8	5.5				

718 API											Bar	Sheet	Plate	Pipe	Fittings	Flanges	Billet	Wire
UNS N07718				W.Nr. 2.4668							√						√	
	Ni	Cr	Mo	Cu	Co	C	Mn	Si	P	S	Fe	Ti	Al	Nb+Ta	B	Se	Pb	Mg
MIN	50	17	2.8	0	0	0	0	0	0	0	BAL	0.8	0.4	4.87	0	0	0	0
MAX	55	21	3.3	0.23	1	0.045	0.35	0.35	0.01	0.01	BAL	1.15	0.6	5.2	50ppm	0.0005 ppm	1000 ppm	0.0006 ppm

Table of Alloys

NICKEL ALLOYS

725											Bar	Sheet	Plate	Pipe	Fittings	Flanges	Billet	Wire
UNS N07725											✓							
	Ni	Cr	Mo	C	Mn	Si	P	S	Fe	Ti	Al	Nb						
MIN	55	19	7	0	0	0	0	0	BAL	1	0	2.75						
MAX	59	22.5	9.5	0.03	0.35	0.2	0.015	0.01	BAL	1.7	0.35	4						

825											Bar	Sheet	Plate	Pipe	Fittings	Flanges	Billet	Wire
UNS N08825				W.Nr. 2.4858							✓	✓						
	Ni	Cr	Mo	Cu	C	Mn	Si	P	S	Fe	Ti	Al						
MIN	38	19.5	2.5	1.5	0	0	0	0	0	BAL	0.6	0						
MAX	46	23.5	3.5	3	0.05	1	0.5	0.02	0.01		1.2	0.2						

925											Bar	Sheet	Plate	Pipe	Fittings	Flanges	Billet	Wire
UNS N09925											✓							
	Ni	Cr	Mo	Cu	C	Mn	Si	S	Fe	Ti	Al	Nb						
MIN	42	19.5	2.5	1.5	0	0	0	0	22	1.9	0.1	0						
MAX	46	22.5	3.5	3	0.03	1	0.5	0.03	BAL	2.4	0.5	0.5						

X750											Bar	Sheet	Plate	Pipe	Fittings	Flanges	Billet	Wire
UNS N07750				W.Nr. 2.4669							✓	✓						
	Ni	Cr	Cu	C	Mn	Si	S	Fe	Ti	Al	Nb+Ta	Co						
MIN	70	14	0	0	0	0	0	5	2.25	0.40	0.70	0						
MAX		17	0.5	0.08	1	0.5	0.01	9	2.75	1.00	1.20	1.00						

230											Bar	Sheet	Plate	Pipe	Fittings	Flanges	Billet	Wire
UNS N06230				W.Nr. 2.4733								✓	✓					✓
	Ni	Cr	Mo	W	Cu	Co	C	Mn	Si	P	S	Fe	Ti	Al	La	B		
MIN	47	20	1	13	0	0	0.05	0.3	0.25	0	0	0	0	0.2	0.005	0		
MAX	65	24	3	15	0.5	5	0.15	1	0.75	0.03	0.015	3	0.1	0.5	0.05	0.015		

75											Bar	Sheet	Plate	Pipe	Fittings	Flanges	Billet	Wire
UNS N06075				W.Nr. 2.4951, 2.4630							✓	✓						
	Ni	Cr	Cu	C	Mn	Si	Fe	Ti										
MIN	BAL	18	0	0.08	0	0	0	0.2										
MAX	BAL	21	0.5	0.15	1	1	5	0.6										

80A											Bar	Sheet	Plate	Pipe	Fittings	Flanges	Billet	Wire
UNS N07080				W.Nr. 2.4952, 2.4631							✓							
	Ni	Cr	Cu	Co	C	Mn	Si	S	Fe	Ti	Al	B	Zr					
MIN	BAL	18	0	0	0	0	0	0	0	1.8	1	0	0					
MAX	BAL	21	0.2	2	0.1	1	1	0.015	3	2.7	1.8	0.008	0.15					

Table of Alloys

NICKEL ALLOYS

86											Bar	Sheet	Plate	Pipe	Fittings	Flanges	Billet	Wire
											√							
	Ni	Mo	C	Cr	Ce													
MIN	65	10	0	25	0													
MAX			0.05		0.03													

90											Bar	Sheet	Plate	Pipe	Fittings	Flanges	Billet	Wire
UNS N07090				W.Nr. 2.4632, 2.4969							√							
	Ni	Cr	Cu	Co	C	Mn	Si	S	Fe	Ti	Al	Zr	B	Pb				
MIN	BAL	18	0	15	0	0	0	0	0	2	1	0	0	0				
MAX	BAL	21	0.2	21	0.12	1	1	0.015	1.5	3	2	0.15	0.02	0.002				

105											Bar	Sheet	Plate	Pipe	Fittings	Flanges	Billet	Wire
				W.Nr. 2.4634							√							
	Ni	Cr	Mo	Cu	C	Mn	Si	S										
MIN	BAL	14	4.5	0	0	0	0	0										
MAX	BAL	15.7	5.5	0.2	0.17	1	0.1	0.01										

617											Bar	Sheet	Plate	Pipe	Fittings	Flanges	Billet	Wire
UNS N06617				W.Nr. 2.4856							√	√	√					
	Ni	Cr	Mo	Cu	Co	C	Mn	Si	S	Fe	Ti	Al	B					
MIN	44.5	20	8	0	10	0.05	0	0	0	0	0	0.8	0					
MAX		24	10	0.5	15	0.15	1	1	0.015	3	0.6	1.5	0.006					

PE11											Bar	Sheet	Plate	Pipe	Fittings	Flanges	Billet	Wire
											√							
	Ni	Cr	Mo	Cu	Co	C	Mn	Si	S	Fe	Ti	Al	Zr	B				
MIN	37	17	4.75	0	0	0.03	0	0	0	BAL	2.2	0.7	0.02	0				
MAX	41	19	5.75	0.5	1	0.08	0.2	0.5	0.015	BAL	2.5	1	0.05	0.001				

PE16											Bar	Sheet	Plate	Pipe	Fittings	Flanges	Billet	Wire
											√							
	Ni+Co	Cr	Mo	Cu	Co	C	Mn	Si	S	Fe	Ti	Al	Zr	B				
MIN	42	15.5	2.8	0	0	0.04	0	0	0	BAL	1.1	1.1	0.02	0				
MAX	45	17.5	3.8	0.5	2	0.08	0.2	0.5	0.015	BAL	1.3	1.3	0.04	0.005				

PK33											Bar	Sheet	Plate	Pipe	Fittings	Flanges	Billet	Wire
											√	√						
	Ni	Cr	Mo	Cu	Co	C	Mn	Si	S	Fe	Ti	Al	Zr					
MIN	BAL	16	5	0	12	0	0	0	0	0	1.5	1.7	0					
MAX	BAL	20	9	0.2	16	0.07	0.5	0.5	0.015	1	3	2.5	0.06					

Table of Alloys

NICKEL ALLOYS

X											Bar	Sheet	Plate	Pipe	Fittings	Flanges	Billet	Wire
UNS N06002				W.Nr. 2.4665							√	√	√					√
	Ni	Cr	Mo	W	Cu	Co	C	Mn	Si	P	S	Fe	Ti	Al	B			
MIN	BAL	20.5	8	0.2	0	0.5	0.05	0	0	0	0	17	0	0	0			
MAX	BAL	23	10	1	0.5	2.5	0.15	1	1	0.04	0.03	20	0.15	0.5	0.01			

C263											Bar	Sheet	Plate	Pipe	Fittings	Flanges	Billet	Wire
UNS N07263				W.Nr. 2.4650							√	√						
	Ni	Cr	Mo	Cu	Co	C	Mn	Si	P	S	Fe	Ti	Al	Al + Ti	B	Bi	Ag	Pb
MIN	BAL	19	5.6	0	19	0.01	0	0	0	0	0	1.9	0.3	2.4	0	0	0	0
MAX	BAL	21	6.1	0.2	21	0.08	0.6	0.4	0.015	0.007	0.7	2.4	0.6	2.8	0.005	0.0001	0.0005	0.002

Waspaloy											Bar	Sheet	Plate	Pipe	Fittings	Flanges	Billet	Wire
UNS N07001				W.Nr. 2.4654							√	√						√
	Ni	Cr	Mo	Cu	Co	C	Mn	Si	P	S	Fe	Ti	Al	B				
MIN	BAL	18	3.5	0	12	0.02	0	0	0	0	0	2.75	1.2	0.003				
MAX	BAL	21	5	0.1	15	0.1	0.1	0.15	0.015	0.015	2	3.25	1.6	0.01				

Rene 41											Bar	Sheet	Plate	Pipe	Fittings	Flanges	Billet	Wire
UNS N07041				W.Nr. 2.4973							√	√						√
	Ni	Cr	Mo	Co	C	Fe	Ti	Al	B	Mn	Si	S	Cu					
MIN	BAL	18	9	10	0	0	3	1.4	0.003	0	0	0	0					
MAX	BAL	20	10.5	12	0.12	5	3.3	1.8	0.01	0.1	0.50	0.015	0.50					

COBALT ALLOYS

L605/25											Bar	Sheet	Plate	Pipe	Fittings	Flanges	Billet	Wire
UNS R30605				W.Nr. 2.4964								√						√
	Ni	Cr	W	Co	C	Mn	Si	P	S	Fe								
MIN	9	19	14	BAL	0.05	1	0	0	0	0								
MAX	11	21	16	BAL	0.15	2	0.4	0.04	0.03	3								

MP35N											Bar	Sheet	Plate	Pipe	Fittings	Flanges	Billet	Wire
UNS R30035											√							
	Ni	Co	Cr	Mo	Ti	Fe	Si	Mn	p	B	S	C						
MIN	33	BAL	19	9	0	0	0	0	0	0	0	0						
MAX	37	BAL	21	10.5	1	1	0.15	0.15	0.15	0.15	0.10	0.03						

188											Bar	Sheet	Plate	Pipe	Fittings	Flanges	Billet	Wire
UNS R30188				W.Nr. 2.4683							√	√						√
	Ni	W	Co	C	Mn	Fe	Cr	La	B	Si	P	S						
MIN	20	13	BAL	0.05	0	0	20.0	0.02	0	0.2	0	0						
MAX	24	16	BAL	0.15	1.25	3	24.0	0.12	0.015	0.5	0.02	0.015						

Table of Alloys

DUPLEX / SUPER DUPLEX

2205		F51									Bar	Sheet	Plate	Pipe	Fittings	Flanges	Billet	Wire
UNS S32205		UNS S31803 W.Nr. 1.4462									√	√	√	√	√	√	√	√
	Ni	Cr	Mo	C	N	Mn	Si	P	S	Fe								
MIN	4.5	22	3	0	0.14	0	0	0	0	BAL								
MAX	6.5	23	3.5	0.03	2	2	1	0.03	0.02	BAL								

ZERON® 100 / UNS S32760		F55									Bar	Sheet	Plate	Pipe	Fittings	Flanges	Billet	Wire
UNS S32760		W.Nr. 1.4496,1.4501									√	√	√	√	√	√	√	√
	Ni	Cr	Mo	W	Cu	C	N	Mn	Si	P	S	Fe						
MIN	6	24	3	0.5	0.5	0	0.2	0	0	0	0	BAL						
MAX	8	26	4	1	1	0.03	0.3	1	1	0.03	0.01	BAL						

STAINLESS ALLOYS

AL-6XN®											Bar	Sheet	Plate	Pipe	Fittings	Flanges	Billet	Wire
UNS N08367											√	√	√	√	√	√	√	√
	Ni	Cr	Mo	Cu	C	N	Mn	Si	P	S	Fe							
MIN	23.5	20	6	0	0	0.18	0	0	0	0	BAL							
MAX	25.5	22	7	0.75	0.03	0.25	2	1	0.04	0.03	BAL							

A286											Bar	Sheet	Plate	Pipe	Fittings	Flanges	Billet	Wire
UNS S66286											√	√						
	Ni	Cr	Mo	Co	C	Mn	Si	P	S	Fe	Ti	Al	V	B				
MIN	24	13.5	1	0	0	0	0	0	0	BAL	1.9	0	0.1	0.003				
MAX	27	16	1.5	1	0.08	2	1	0.025	0.025	BAL	2.35	0.35	0.5	0.01				

PH13-8Mo											Bar	Sheet	Plate	Pipe	Fittings	Flanges	Billet	Wire
UNS S13800											√							
	Ni	Cr	Mo	C	N	Mn	Si	P	S	Fe	Al							
MIN	7.5	12.25	2	0	0	0	0	0	0	BAL	0.9							
MAX	8.5	13.25	2.5	0.05	0.1	0.2	0.1	0.01	0.008	BAL	1.35							

15-5PH											Bar	Sheet	Plate	Pipe	Fittings	Flanges	Billet	Wire
UNS S15500											√		√					
	Ni	Cr	Cu	C	Mn	Si	P	S	Fe	Nb+Ta								
MIN	3.5	14	2.5	0	0	0	0	0	BAL	0.15								
MAX	5.5	15.5	4.5	0.07	1	1	0.04	0.03	BAL	0.45								

Table of Alloys

STAINLESS ALLOYS

17-4PH											Bar	Sheet	Plate	Pipe	Fittings	Flanges	Billet	Wire
UNS S17400				W.Nr. 1.4542-4548							√	√	√					√
	Ni	Cr	Mo	Cu	C	Mn	Si	P	S	Fe	Nb+Ta							
MIN	3	15	0	3	0	0	0	0	0	BAL	5 x C							
MAX	5	17.5	0.50	5	0.07	1.0	1	0.04	0.03	BAL	0.45							

310S											Bar	Sheet	Plate	Pipe	Fittings	Flanges	Billet	Wire
UNS S31008 –UNS S31009				W.Nr. 1.4845							√	√	√	√				
	Ni	Cr	Mo	Cu	C	Mn	Si	P	S	Fe								
MIN	19	24	0	0	0	0	0	0	0	BAL								
MAX	22	26	0.75	0.5	0.08	2	0.75	0.045	0.03	BAL								

321											Bar	Sheet	Plate	Pipe	Fittings	Flanges	Billet	Wire
UNS S32100				W.Nr. 1.4541							√	√	√	√	√	√		
	Ni	Cr	Mo	Cu	C	N	Mn	Si	P	S	Fe	Ti						
MIN	9	17	0	0	0	0	0	0.25	0	0	BAL	5 x (C+N)						
MAX	12	19	0.75	0.75	0.08	0.1	2	1	0.04	0.03	BAL	0.7						

253MA											Bar	Sheet	Plate	Pipe	Fittings	Flanges	Billet	Wire
UNS S30815				W.Nr. 1.4835							√	√	√	√	√	√	√	√
	Ni	Cr	C	N	Mn	Si	P	S	Fe	Ce								
MIN	10	20	0.05	0.14	0	1.4	0	0	BAL	0.03								
MAX	12	22	0.1	0.2	0.8	2	0.04	0.03	BAL	0.08								

Maraging 250											Bar	Sheet	Plate	Pipe	Fittings	Flanges	Billet	Wire
UNS K92890				W.Nr. 1.6359							√							
	Ni	Mo	Co	C	Mn	Si	P	S	Fe	Ti	Al							
MIN	17	4.6	7	0	0	0	0	0	68	0.3	0.05							
MAX	19	5.2	8.5	0.3	0.10	0.1	0.01	0.01		0.5	0.15							

Maraging 300											Bar	Sheet	Plate	Pipe	Fittings	Flanges	Billet	Wire
UNS K93120				W.Nr. 1.6354 W.Nr. 1.6358							√							
	Ni	Cr	Mo	Cu	Co	C	Mn	Si	P	S	Fe	Ti	Al					
MIN	18	0	4.6	0	8.5	0	0	0	0	0	BAL	0.5	0.05					
MAX	19	0.5	5.2	0.5	9.5	0.03	0.1	0.1	0.01	0.01	BAL	0.8	0.15					

Maraging 350											Bar	Sheet	Plate	Pipe	Fittings	Flanges	Billet	Wire
UNS K93160				W.Nr. 1.6356							√							
	Ni	Cr	Mo	Cu	Co	C	Mn	Si	P	S	Ti	Al						
MIN	18	0	4.6	0	11.5	0	0	0	0	0	1.3	0.05						
MAX	19	0.5	5.2	0.5	12.5	0.03	0.1	0.1	0.01	0.01	1.6	0.15						

Table of Alloys

STAINLESS ALLOYS

Nitronic 50 (XM-19)											Bar	Sheet	Plate	Pipe	Fittings	Flanges	Billet	Wire
UNS S20910				W.Nr. 1.3964							√							
	Ni	Cr	Mo	Mn	Si	C	N	S	P	Nb	V	Fe						
MIN	11.5	20.5	1.5	4.0	0	0	0.2	0	0	0.1	0.1	BAL						
MAX	13.5	23.5	3.0	6.0	1.0	0.06	0.4	0.03	0.045	0.3	0.3	BAL						

Nitronic 60											Bar	Sheet	Plate	Pipe	Fittings	Flanges	Billet	Wire
UNS S21800											√							
	Ni	Cr	Mn	Si	C	N	S	P	Fe									
MIN	8.0	16.0	7.0	3.5	0	0.08	0	0	BAL									
MAX	9.0	18.0	9.0	4.5	0.10	0.18	0.03	0.06	BAL									

Aermet 100											Bar	Sheet	Plate	Pipe	Fittings	Flanges	Billet	Wire
UNS K92580											√							
	Ni	Cr	Mo	Co	C	Fe												
MIN	11	2.9	1.1	13	0.21	BAL												
MAX	12	3.3	1.3	14	0.25	BAL												

ALLOY STEELS

15CDV6											Bar	Sheet	Plate	Pipe	Fittings	Flanges	Billet	Wire
				W.Nr. 1.7734							√							
	Cr	Mo	C	Mn	Si	P	S	Fe	V									
MIN	1.25	0.8	0.12	0.8	0	0	0	BAL	0.2									
MAX	1.5	1	0.18	1.1	0.2	0.02	0.015	BAL	0.3									

300M/S155											Bar	Sheet	Plate	Pipe	Fittings	Flanges	Billet	Wire
											√							
	Ni	Cr	Mo	C	Mn	Si	P	S	Fe									
MIN	3.5	1.6	0.4	0.39	0.6	1.5	0	0	BAL									
MAX	4.5	2	0.6	0.44	0.9	1.8	0.015	0.01	BAL									

S156 Alloy Steel											Bar	Sheet	Plate	Pipe	Fittings	Flanges	Billet	Wire
				W.Nr. 1.6722,1.6723							√							
	Ni	Cr	Mo	C	Mn	Si	P	S	Fe									
MIN	3.8	1	0.2	0.14	0.25	0.1	0	0	BAL									
MAX	4.3	1.4	0.3	0.18	0.55	0.35	0.015	0.012	BAL									

Table of Alloys

ALLOY STEELS

S99G Steel											Bar	Sheet	Plate	Pipe	Fittings	Flanges	Billet	Wire
											√							
	Ni	Cr	Mo	C	Mn	Si	P	S	Al	Fe								
MIN	2.3	0.5	0.45	0.36	0.45	0.1	0	0	0.015	BAL								
MAX	2.8	0.8	0.65	0.44	0.7	0.35	0.025	0.02	0.05	BAL								

TITANIUM ALLOYS

Ti Grade 2											Bar	Sheet	Plate	Pipe	Fittings	Flanges	Billet	Wire
UNS R50400				W.Nr. 3.7034,3.7035							√	√	√	√	√	√		
	C	N	O	H	Fe	Ti												
MIN	0	0	0	0	0	BAL												
MAX	0.08	0.03	0.25	0.015	0.3	BAL												

Ti Grade 4											Bar	Sheet	Plate	Pipe	Fittings	Flanges	Billet	Wire
UNS R50700				W.Nr. 3.7065							√							√
	C	N	O	H	Fe	Ti												
MIN	0	0	0	0	0	BAL												
MAX	0.08	0.05	0.40	0.015	0.5	BAL												

Ti Grade 5		Ti 6AL-4V									Bar	Sheet	Plate	Pipe	Fittings	Flanges	Billet	Wire
UNS R56400				W.Nr. 3.7164-7165							√	√	√					√
	C	N	O	H	Fe	Ti	Al	V										
MIN	0	0	0	0	0	BAL	5.5	3.5										
MAX	0.08	0.05	0.2	0.125	0.4	BAL	6.75	4.5										

Ti 6-2-4-2											Bar	Sheet	Plate	Pipe	Fittings	Flanges	Billet	Wire
UNS R56421				W.Nr. 3.7164							√							
	Mo	C	N	Si	Y	O	H	Fe	Ti	Al	Sn	Zr						
MIN	1.8	0	0	0.06	0	0	0	0	BAL	5.5	1.8	3.6						
MAX	2.2	0.05	0.05	0.1	0.005	0.12	0.015	0.25	BAL	6.5	2.2	4.4						

Ti 6-2-4-6											Bar	Sheet	Plate	Pipe	Fittings	Flanges	Billet	Wire
UNS R56260				W.Nr. 3.7164							√							
	Mo	C	N	O	H	Fe	Ti	Al	Sn	Zr								
MIN	5.5	0	0	0	0	0	BAL	5.5	1.75	3.5								
MAX	6.5	0.04	0.04	0.15	0.0125	0.15	BAL	6.5	2.25	4.5								

Processing Capabilities



BAR SAWING



LASER CUTTING



WATERJET CUTTING



2D LASER INSPECTION



PLATE SAWING



SHEARING

NeoNickel Quality Approvals

NeoNickel Blackburn:

**BS EN ISO 9001:2008; BE EN ISO AS9100 Rev C;
BS EN ISO AS 9120 Rev A; TS 29001**

BS OHSAS 18001:2007

Rolls-Royce
Certificate Number 84820

Safran Aircele

Safran Messier-Dowty

BAE Systems
BAE/AG/20341/MAA

BAE Systems Regional Aircraft
RALOA/00474/2

NADCAP
Certificate Number 6338146636

Cameron 10101287

Other Oil & Gas Approvals
BP, Exxon Mobil, Shell, Aker Solutions, Vetco,
Weatherford, Halliburton

FPAL 10041410

NeoNickel Milton Keynes:

**BS EN ISO 9001:2008 & AS 9100
Rev C & AS 9120 Rev A**
6045 and 6045/1

ISO 14001:2004

Rolls-Royce
Approval No: 89730 (RPS 905/1. RR9000: SABRe)

Rolls-Royce Nuclear Sector Submarines
M000034 (GS3001, SABRe)

GKN Aerospace Services – Cowes BP0002175

AgustaWestland
AW/0095 (SQA50)

BAE Systems
BAE/AG/20203/MAA

BAE Systems Regional Aircraft RALOA/00318/2

Safran Messier-Dowty
N/A (PRIDE Commodity Group Q1)

Meggitt Aerospace Equipment
Meggitt/2012/331

Eaton Aerospace Titchfield– UK
T11246

HS Marston Aerospace Limited
AS 1032

Moog Controls Limited

NeoNickel Kingswinford:

BS EN ISO 9001:2008
FM 596436

Rolls-Royce 84880

Rolls-Royce
Deutschland Ltd & Co KG 99540

Augusta Westland AW/0035 QRS01

Other Approvals:
Foster Wheeler & Aker Kvaerner Projects Ltd
(Jacobs Engineering Group)

NeoNickel Milan, Italy:

BS EN ISO 9001:2008

NeoNickel Lyon, France:

**BS EN ISO 9001:2008; BS EN AS9100 Rev C; BS
EN ISO AS 9120 Rev A; TS 29001:2010**
Dassault, Durual (Groupe AD Industrie), SNECMA,
Areva, EMT, Arkema, SAFED, Cameron

NeoNickel Hranice, Czech Republic:

BS EN ISO 9001:2008 & BS EN ISO AS 9120 Rev A
LRQ 0921927/A

**Laboratory Control at Source (LCS) Pratt &
Whitney Group**
Distributor of bar and sheet

Honeywell Aerospace, Olomouc

NeoNickel Düsseldorf, Germany:

**BS EN ISO 9001:2008; BS EN ISO AS 9120 Rev A;
TS 29001**
LRQ 0921927

England, Blackburn

England, Kingswinford

England, Milton Keynes

Germany, Düsseldorf

Czech Republic, Hranice Na Morave

France, Chassieu

Italy, Nova Milanese

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