

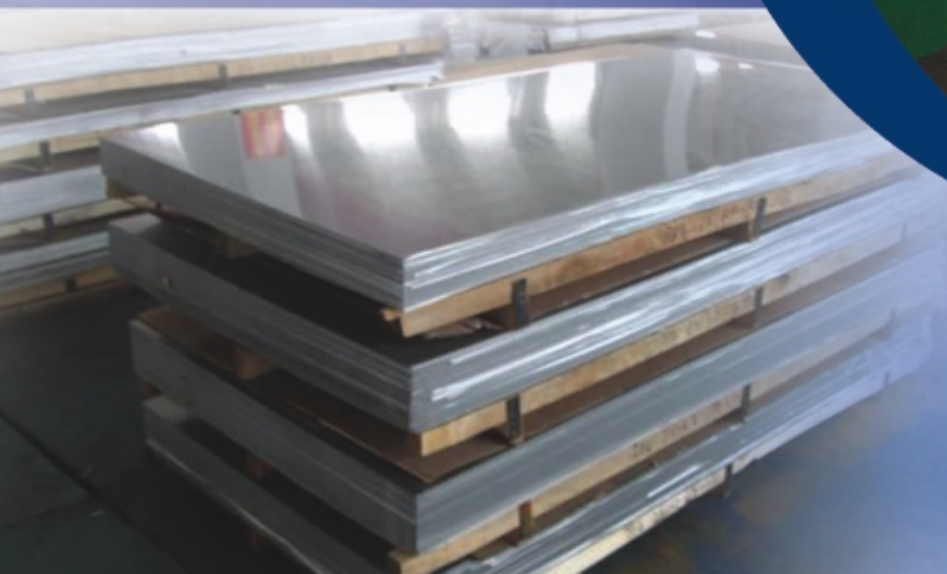


Mayur Metal Industries

An ISO 9001:2008 Certified Co.

“Quality”
in everything we do

Importers, Exporters, Stockists & Suppliers of :
Stainless Steel & Nickel Based Alloys
(Round Bars, Plates, Coils, Pipes & Flats)



**Specialized in : Stainless Steel & Nickel Based Alloys
(Round Bars, Plates, Coils, Pipes & Flats)**

Stainless Steel : 321, 317L, 347, 904L, (Rods / Shafts)
Duplex Steel : 2205, 2507, XERON 100
F-51, F-53, F-55, F-60
UNS : S31803, S32750, S32760
Monel 400, K 500, Inconel : 625, 825, 600, 800
Nickel, Hastelloy, Titanium

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About Us

Mayur Metal Industries are a professionally managed importers, exporters & distributors of ferrous and non ferrous metals. We are capable of providing a vast range of materials, from stock, to suit your needs. From highly specialized non-standard material to off the shelf items, from production to prototype, from low minimums to mill runs, **Mayur Metal Industries** has the experience to solve your most difficult requirements. With our focus on Superior Customer Service, Premium Quality and Quick turn around. We are sure you will agree that **Mayur Metal Industries** are your best source for any metal.

Having established ourselves and set up in the heart of India 's commercial center Mumbai, We have built up adequate stock levels of all essential items within our scope of supply and are in position to offer immediate deliveries. We have been participating in major infrastructure and industrial



government projects of India. We are a client focused and service oriented group. The foundations of our business heritage continue to be based on quality, reputation, customer service and performance.

Our team of motivated staff offers our partners and principal companies a comprehensive service that includes Commercial, Shipping & handling, Travel, Government and end-user approvals,

Technical sales, Project intelligence and follow-up, local procurement and logistics, and after-sales-service and support.

We can arrange 3rd party inspections for the materials as per customer's specific instructions and have already arranged such inspections under EIL/PDIL/SGS/DV/LLOYDS ETC..

OUR VISION

To be the premier supplier of metals solutions around the world, revolutionizing the chains of the industries we serve.

OUR VALUES

Integrity First... In thought and deed.

Safety in all we do, at all times.

Smart Work + Hard Work = Excellence

Creating Value brings success. Sharing success makes it sustainable.



Quality in everything we do



Quality Policy

- Our key directive is complete customer satisfaction.
- We provide our customers with product and services that confirm to all requirements.
- We develop quality objectives at appropriate level to ensure those requirements are effectively addressed in our business.
- We are fully committed to continuous improvement as a strategic approach to achieve these quality objectives.

Our policy and associated quality objectives are reviewed and communicated to all employees on a regular basis.

At **Mayur Metal Industries** our employees adhere to and contribute to the efficiency of our quality system in every aspect of our business. Our commitment guarantees to provide our clients with uncompromising quality and service. This is achieved through a team approach where all the members are aware of the company objectives and work within their own discipline to an effective contribution.

To verify that the supply made to our clients exact specifications, our quality control team combines technical expertise, knowledge of industrial standards and the latest inspection tools and machines to meet all requirements. particular attention is paid to high quality, tolerance and traceability.



Our quality assurance program maintains the highest level of quality and actively contributes towards establishing and achieving the corporate objectives. Quality people, quality engineering and quality products.

These are the key to **Mayur Metal Industries** continued growth. Our commitment guarantees to provide the customer with uncompromising quality, responsive service, competitive pricing and timely delivery. This is achieved through a team approach where all the members are aware of the company objectives and work within their own discipline to make an effective contribution.



SHEETS, PLATES & COILS

Size :

- Sheets** : 0.8mm to 4mm thk upto 3000 mm Width & Length as per your requirement
Plates : 5mm to 100 mm thk upto 3000 mm Width & Length as per your requirement
Coils : 0.1 mm thk to 12mm thk upto 3000 mm Width
Foils : 0.01 mm thk to 3 mm thk in any width

Type :

- Finish** : HR No.1, 2B, BA, Matt, Matt+1 side PVC, BA + 1side PVC, Chequered

Grades :

- Stainless Steel** : 304/304L, 316/316L/316Ti, 321, 310/310S, 317/317L, 347, 17-4Ph, 15-5Ph, 904L, 410, 420, 430, 431, 430F, 416, 440C etc.
 Copper, Brass, Aluminium, Hastelloy, Titanium, Monel, Inconel, Nickel, etc.
Duplex Steel : UNS 31803, UNS 32205, UNS 32750, UNS 32760
 Carbon Steel, Mild Steel, Boiler Quality Plates
Specification : ASTM, AISI, ASME, DIN, UNS etc.

Size :

- Bright Bars** : from 5mm Dia upto 350mm Dia
Black Bars : from 16mm Dia upto 350mm Dia
Square Bars : from 5mm Dia upto 250mm Dia
Hex Bars : from 5mm Dia upto 150mm Dia
Wires : 0.1mm Dia to 5mm Dia

Specification :

- Condition** : Rolled, Forged, Annealed, Picked, Hot Rolled, Cold Rolled

Grades :

- Stainless Steel** : 304/304L, 316/316L/316Ti, 321, 310/310S, 317/317L, 347, 17-4Ph, 15-5Ph, 904L, 410, 420, 430, 431, 430F, 416, 440C etc.
 Copper, Brass, Aluminium, Hastelloy, Titanium, Monel, Inconel, Nickel, etc.
Duplex Steel : UNS 31803, UNS 32205, UNS 32750, UNS 32760
Alloy Steel : F5, F9, F11, F22, F91
 Carbon Steel, Mild Steel, Boiler Quality Plates
Specification : ASTM, AISI, ASME, DIN, UNS etc.

ROUND BAR, HEX, SQUARE

PIPES & TUBES

Size :

- Pipes** : 1/8" NB, Upto 48" NB in Sch 5, 10, 40, 80, 160, XS, XXS
Tubes : 1/4" O.D. upto 12" O.D. minimum 0.5 mm thk.

Types :

- Forms** : ERW & Seamless
Shapes : Round, Square, Rectangular, Triangular, Oval

Grades :

- Stainless Steel** : 304/304L, 316/316L/316Ti, 321, 310/310S, 317/317L, 347, etc.
 Copper, Brass, Aluminium, Hastelloy, Titanium, Monel, Inconel, Nickel, etc.
Duplex Steel : UNS 31083, UNS 32205, UNS 32750, UNS 32760
Alloy Steel : P1, P5, P9, P11, P12, P22, P23, P91
Carbon Steel : ASTM A53, Gr. B / A106 GR B / API 5L Gr. B / P11, P15, P21, P91
Specification : ASTM, AISI, ASME, DIN, UNS etc.

DUPLEX STEEL & SUPER DUPLEX STEEL

UNS number Duplex Grades	Type ^b	C	Mn	P	S	Si	Cr	Ni	Mo	N	Cu	Other
S31803	-	0.030	2.00	0.030	0.020	1.00	21.0 - 23.0	4.5 - 6.5	2.5 - 3.5	0.08 - 0.20	-	-
S32205	2205	0.030	2.00	0.030	0.020	1.00	19.5 - 21.5	4.5 - 6.5	3.0 - 3.5	0.14 - 0.20	-	-
S32550	255	0.04	1.50	0.040	0.030	1.00	24.0 - 27.0	4.5 - 6.5	2.9 - 3.9	0.10 - 0.25	1.5 - 2.5	-
S32750	2507	0.030	1.20	0.035	0.020	0.80	24.0 - 26.0	6.0 - 8.0	3.0 - 5.0	0.24 - 0.32	0.50	-
S32760	-	0.030	1.00	0.030	0.010	1.00	24.0 - 26.0	6.0 - 8.0	3.0 - 4.0	0.20 - 0.30	0.50 - 1.00	-
S32900	329 ^b	0.06	1.00	0.040	0.030	0.75	23.0 - 28.0	2.5 - 5.0	1.0 - 2.0	-	-	-

Duplex Stainless Steel and their characteristics

Duplex Stainless steels were developed more than 70 years ago in Sweden for use in the sulfite paper industry. Duplex alloys were originally created to combat corrosion problems caused by chloride-bearing cooling waters and other aggressive chemical process fluids.

Called Duplex because of its mixed microstructure with about equal proportions of ferrite and austenite, duplex stainless steels are a family of grades, which range in corrosion performance depending on their alloy content. The chemical composition based on high contents of Cr and Mo improves intergranular and pitting corrosion resistance respectively. Additions of nitrogen can promote structural hardening by interstitial solid solution mechanism, which raises the yield strength and ultimate strength values without impairing toughness. Moreover, the two-phase microstructure guarantees higher resistance to pitting and stress corrosion cracking in comparison with conventional stainless steels.

Coinciding with the 1970's development of offshore gas and oilfields in the North Sea, a second-generation Duplex was introduced and quickly became the duplex steel of choice. With deliberate addition of nitrogen as an alloying agent, both improved toughness in the heat-affected zones of welds and excellent chloride corrosion resistance was achieved thus quickly becoming the workhorse of stainless steels, accounting for more than 80% of duplex use. Its popularity is also cost-based as the replacement of the nickel content with the less-expensive addition of nitrogen.

Duplex alloys are essentially a compromise possessing some of the ferritic stress corrosion cracking resistance and much of the superior formability of the common austenitic stainless alloys at a cost saving over the high nickel alloys.

BENEFITS

- High strength,
- High resistance to pitting, crevice corrosion resistance.
- High resistance to stress corrosion cracking, corrosion fatigue and erosion.
- Good sulfide stress corrosion resistance,
- Low thermal expansion and higher heat conductivity than austenitic steels,
- Good workability and weldability.
- High energy absorption.

APPLICATIONS

Heat exchangers, tubes and pipes for production and handling of gas and oil,
 Heat exchangers and pipes in desalination plants,
 Pressure vessels, pipes, tank and heat exchangers for processing and transport of various chemicals,
 Pressure vessels, tanks and pipes in process industries handling solutions containing chlorides,
 Rotors, fans, shafts and press rolls where the high corrosion fatigue strength can be utilized,
 Cargo tanks, piping and welding consumables for chemical tankers.

Stainless 347 / AISI 347

Stainless 347 has low tantalum and cobalt and should be considered for nuclear applications. Stainless 347 is resistant to atmospheric corrosion, sterilizing solutions, many organic chemicals, and a wide variety of inorganic chemicals. Stainless 347 should also be considered for use in aircraft collector rings, and exhaust manifolds, expansion joints, and high temperature chemical process equipment.

Chemical Analysis of Stainless 347 / AISI 347															
C	Mn	ph	S	Si	Cr	Ni	Mo	Cu	Co	V	Ti	Al	Fe	Cb+Ta	Zr
0.08	2.00	0.045	0.03	1.00	17.0 - 19.0	9.0 - 13.0	0.50	0.50						10 x C min	

Stainless 321 / AISI 321

Stainless 321 is a chromium-nickel steel which was developed with improved intergranular- corrosion resistance. Stainless 321 is resistant to atmospheric corrosion, sterilizing solutions, many organic chemicals, and a wide variety of inorganic chemicals. Type 321 should be used for applications requiring heating between 800 F and 1650 F such as aircraft collector rings, and exhaust manifolds, expansion joints, and high temperature chemical process equipment.

Chemical Analysis of Stainless 321 / AISI 321															
C	Mn	ph	S	Si	Cr	Ni	Mo	Cu	Co	V	Ti	Al	Fe	Cb+Ta	Zr
0.08	2.00	0.045	0.03	1.00	17.0 - 19.0	9.0 - 12.0	0.50	0.50						5 x C min	

Stainless 317L / AISI 317L

Stainless 317 L has a high tensile and creep strength at elevated temperatures. Due to its excellent corrosion resistance it has been used in handling many of the chemicals used by the chemical process industries.

Chemical Analysis of Stainless 317L / AISI 317L															
C	Mn	ph	S	Si	Cr	Ni	Mo	Cu	Co	V	Ti	Al	Fe	Cb+Ta	Zr
0.03	2.00	0.045	0.03	1.00	18.0 - 20.0	11.0 - 15.0	3.0 - 4.0								

17-4 ph*

17-4 ph offers high strength and hardness along with excellent corrosion resistance. 17-4 ph has been used for a variety of applications including oil field valve parts, chemical process equipment, aircraft fittings, fasteners, pump shafts, nuclear reactor component, gears, Paper mill equipment, missile fittings, and jet engine parts.

17-4 ph															
C	Mn	ph	S	Si	Cr	Ni	Mo	Cu	Co	V	Ti	Al	Fe	Cb+Ta	Zr
0.07	1.00	0.04	0.03	1.00	15.0 - 17.0	3.0 - 5.0								0.15 - 0.45	

NICKEL 200

Commercially pure (99.6%) wrought nickel with good mechanical properties and resistance to a range of corrosive media. Good thermal, electrical and magnetostrictive properties. Used for variety of processing equipment, particularly to maintain product purity in handling foods, synthetic fibers and alkalis. Standard product forms are round, flats, pipe, tube, plate, forging stock, strip and wire.

Limiting Chemical Composition %

Ni ^a99.2 min	Mn.....0.35 min	S.....0.01 max
Cu.....0.25 min	C0.15 min	
Fe.....0.40 max	Fe.....0.35 max	

UNS N02200 BS 3072-3076 (Na11) ASTM B 160 B 163
B 725 B730 ASME SB. 160-SB. 163,
Boiler Code Sections III, VIII, IX

Specifications and Designations

DIN 17740, 17750-17754
Werkstoff Nr. 2.4060
2.4066

NICKEL 201

Commercially pure (99.6%) wrought nickel essentially the same as Nickel 200 but with a lower carbon content to prevent embrittlement by intergranular carbon temperatures over 600 oF (3015oC). Lower carbon content also reduces hardness Nickel 201 particularly suitable for cold-formed items. Standard product forms are round, flats, pipe, tube, plate, sheet, forging stock, strip and wire.

Limiting Chemical Composition %

Ni ^a 99.0 min	Mn..... 0.35 max	S.....0.01 max
Cu.....0.25 max	C0.02 max	
Fe..... 0.40 max	Fe.....0.35 max	

UNS N02201 BS 3072-3076 (Na12) ASTM B 160 B 163 B 725,
B730 ASME SB. 160-SB. 163, Boiler Code Sections III, VIII, IX

Specifications and Designations

SAE AMS 5553
DIN 17740, 17750-17754
Werkstoff Nr. 2.4061, 2.4068
VdTÜV 345

MONEL 400

A nickel-copper alloy with high strength and excellent corrosion resistance in a range of media including sea water hydrofluoric, chemical and hydrocarbon processing equipment, valves, pumps, shafts, fitting, fasteners and heat exchangers. Standard product forms are round, hexagon, flats, forging stock, pipe, tube, plate, sheet, strip and wire.

Limiting Chemical Composition, %

Ni ^a 63.0 min	Mn 2.0 max	Si 0.5 max
Cu 28.0-34.0	C 0.3 max	
Al 2.5 max	S 0.024 max	

UNS NO4400 MIL-T-1368,
BS 3072-3076 (NA 13)
ASTM B Boiler Code Section III, IV, VIII, IX
NACE MR-01-75

Specifications and Designations

MONEL IS REGISTERED TRADEMARK OF SPECIAL METAL LTD.

MIL-T-23520
Werkstoff Nr. 2.4360, 2.4361
QQ-N-281

MONEL K-500

Corrosion-hardenable nickel-copper alloy that combines on resistance of Monel alloy 400 with greater hardness. It also has low permeability and is to under -1 5PF (-101 T). Used for pump shaft, and valve instruments, doctor blades and scrapers, trim, fasteners, and marine propeller shafts. Product forms are round, hexagon, flats, forging tube, plate, sheet, strip and wire.

Limiting Chemical Composition, %

Ni ^a63.0 min	Ti0.35-0.85	Mn1.5 max
Cu 27.0-33.0	Fe 2.0 max	S0.01 max
AL..... 2.30-3.15	C0.25 max	Si0.5 max

MONEL ALLOY K-500
BS 3072-3076 (NA 13)
ASTM B Boiler Code Section VIII
NACE MR-01-75

Specifications and Designations

MIL-N-24549 DIN 17743,
17752, 17752
WERKSTOFF NR. 2.4375
QQ-N-286

INCONEL 600

A nickel-chromium alloy with good oxidation resistance at high temperatures and resistance to chloride-ion stress corrosion cracking by high-purity water and causing corrosion. Used for furnace components, in chemical and food processing, nuclear engineering and for sparking electrodes. Standard product forms are round, hexagon extruded section, flats, forging stock pipe, tube, plate, sheet, strip and wire.

Limiting Chemical Composition %

Ni.....72.0 min	C.....0.15 max	S.....0.5 max
Cr14.0-17.0	Mn1.0 min	Cu.....0.5 max
Fe.....6.0-10.0	S.....0.15 max	

Specification and Designations

DIN 17742, 17750-17754

Werkstoff Nr. 2.4061

INCONEL 601

A nickel-chromium alloy with an addition of aluminum for outstanding resistance to oxidation and other forms of high temperature corrosion. It also has high mechanical properties at elevated temperatures. Used for industrial furnaces; petrochemical and other process equipment; such as baskets, muffles and retorts, petrochemical and other process equipment, and gas-turbine components. Standard product forms are round, flats, forging stock, pipe, tube, plate, sheet, strip and wire.

UNS N06600 ASME Boiler Code Section I, III, VII, IX

SAE AMS 5540, 5580, 5665, ASTM B 165 B 68

Ni.....58.0-63.0	Fe.....Reminder	Si.....0.50 max
Cr21.0-25.0	C0.10 max	S.....0.015 max
Fe.....1.0-1.7	S.....1.0 max	Cu.....1.0 max

Specifications and Designations

UNS N06601

DIN 17742, 17750-17752

ASME Boiler Code Section VIII

Werkstoff 2.4851

SAE Ams 5715, 5870

ASTM B 166-B 165

INCONEL 625

A nickel-chromium-molybdenum alloy with an addition of niobium that acts with molybdenum to stiffen the alloy's matrix and thereby provide high strength without a strengthening heat treatment. The alloy resists a wide range of severely corrosive environments and is especially resistant to pitting and crevice corrosion. Used in chemical processing, aerospace and marine engineering, pollution control equipment and nuclear reactor. Standard product forms are round, flats, forging stock, extruded section, pipe, tube, plate, sheet, strip and wire.

Ni..... 58.0 min	C..... 0.10 max	Ti.....0.40 max
Cr20.0-23.0	Mn.....0.50 max	P..... 0.015 max
Mo.....8.0-10.0	Si.....0.50 max	Co ^b1.0 max
Nb ^a3.15-4.15	S.....0.015 max	
Fe..... 5.0 max	Al.....0.40 max	

* Plus Ta ^bif determined

UNS N06625

(BS 3072, 3074, 3076 Wa21)

ASTM B443, B444, B446

B564, B704, B705, B761

ASME SB-443, SB-44, SB-446, SB-564

Boiler code Sections I, III, VIII, IX

Specifications and Designations

SAE AMS 5561, 5599, 5666, 5337

DIN 17744, 17750-17752, 177754

Werkstoff No.2, 4856

NACE Mr0175

AFMOR NC 22.0NB

INCONEL 800

A nickel-iron-chromium alloy with good strength and excellent resistance to oxidation and carburization in high temperature atmospheres environments. The alloy maintains a stable austenitic structure during prolonged exposure to high temperature. Used for process piping, heat exchangers, carburizing equipment, heading-element sheathing, and nuclear stream-generator tubing. Standard product forms are round, flats, forging stock, pipe, tube, plate, sheet, strip and wire.

Limiting Chemical Composition %

Ni.....30.0-35.0 min	Mn.....1.50 max	Al.....0.15-0.60
Fe.....39.5 min	S.....0.015 max	Ti.....0.15-0.60
Cr.....19.0-23.0	Si.....1.0 max	
C.....0.10 max	Cu.....0.75 max	

UNS NO. 8800

BS 3072-3076 (NA 15)

ASTM B-163, B-407-B409

ASME SB-163, SB 407-SB-409, SB-564

Boiler Code Section I, III, VII, IX

Specification and Designations

S.E.W 470

Werkstoff Nr. 1876

B514, B515, B564, B751

INCONEL 825

A nickel-chromium alloy with additions of molybdenum and copper. It has excellent resistance to both reducing and oxidizing acids to stress corrosion cracking and to localized attack such as pitting and crevice corrosion. The alloy is especially resistant to sulfuric and phosphoric acids. Used for chemical processing, pollution-control equipment, oil and gas well piping, nuclear fuel reprocessing, acid production and pickling equipment, Standard product forms are round, flats, forging stock, pipe, tube, plate,

Limiting Chemical Composition %

Ni.....38.0-46.0	Mn.....1.5-3.0	S.....0.03 max
Fe.....22.0 min	Ti.....0.6-1.2	Si.....0.5 max
Cr.....19.5-23.5	C.....0.05 max	Al.....0.2 max
C.....2.5-3.5	Mn.....1.0 max	

* Plus Ta ^bif determined

UNS N08825

BS 3072, 3074, 3076(NA16)

ASTM B163, B-423, B-425

ASME SB-163, SB-423-SB-425

Boiler Code Section III, VIII, IX

Specifications and Designations

DIN 17744, 17750-17752, 17752

Werkstoff No. 24858

VdeUV 432

AFNOR Nfe32 C200U

HASTELLOY C - 276

A nickel-molybdenum-chromium alloy with an addition of tungsten having excellent corrosion resistance in a wide range of severe environments. The high molybdenum content makes the alloy especially resistant to pitting and crevice corrosion. The low carbon content minimizes carbide precipitation during welding to maintain corrosion resistance in as welded structures. Used in pollution control, chemical processing pulp and paper production and waste treatment Standard product forms are round, forging stock, tube, pipe, plate, sheet, strip and wire.

Limiting Chemical Composition, %

Ni.....Remainder	Co..... 2.5 max	S.....0.03 max
Mo.....15.0-17.0	Mn..... 1.0 max	Si.....0.08 max
Cr.....14.5-16.5	C.....0.01 max	
Fe.....4.0-7.0	V0.35 max	
W..... 3.0-4.5	P 0.04 max	

Specifications and Designations

UNS N10276
ASTM B-574, B-575, B-619
B-622, B-626, B-751
NACE MR-01-75
DIN 17744, 17750-17752

ASME SB-574, SB-575, SB-619
SB-622, SB-626, Boiler Code
Section I, III, VIII, IX.
Werkstoff Nr. 2.4819

ALLOY - 20

Alloys 20 is one of the so-called "super" stainless steels that was designed for maximum resistance to acid attack. It's nickel, chromium, molybdenum and copper content contribute to its overall resistance to chloride ion stress corrosion cracking and general pitting attack. The alloy is stabilized with columbium to minimize carbide precipitation during welding. It has good mechanical properties and can be fabricated with comparative ease. Although the alloy was designed for use in sulfuric acids related industries, it finds wide usage throughout the chemical processing industry. It is also used in sulfuric acid related industries, it finds wide usage throughout the chemical processing industry. It is also used for processing pharmaceuticals, food, gasoline, solvents, plastics, explosives, synthetic fibres and many other products.

Limiting Chemical Composition %

Ni.....	32-38.0
Mo.....	2.00-3.00
Cr.....	19.0-21.0
P.....	0.045 max
C.....	0.07 max
Mn.....	2.0 max
Cu.....	3.0 - 4.0
Fe.....	Bal
S.....	0.035 max
Si.....	1.00 max
Cb.....	1.00 max

ALLOY - 904L

904L is a non-stabilised lowcarbon high alloy austenitic stainless steel. The addition of copper to this grade gives greatly improved resistance to strong reducing acids particularly sulphuric acid. It is also highly resistant to chloride attack-both pitting / crevice corrosion and stress corrosion and stress corrosion cracking.

Limiting Chemical Composition %

Ni.....	23.0-28.0
Mo.....	4.00-5.00
Cr.....	19.0-23.0
P.....	0.045
C.....	0.020 max
Mn.....	2.0 max
Cu.....	1.0-2.0
S.....	0.035 max
Si.....	1.00 max
C.....	0.020

NICKEL ALLOYS

SMO - 254

Avesta Sheffield 254 SMO is an austenitic stainless steel which due to its high molybdenum content possesses very high resistance to pitting and crevice corrosion. The steel grade was developed by Avesta Sheffield for use in halide-containing environments such as seawater. 254 SMO also shows good resistance to uniform corrosion and, especially in acids containing halides, this steel grade is superior to conventional stainless steels.

254 SMO is a registered trademark of Avesta Sheffield AB.

The high levels of molybdenum in particular but also of chromium and nitrogen endow 254 SMO with extremely good resistance to pitting and crevice corrosion. The addition of copper provides improved resistance in certain acids. Further more, due to its relatively high nickel content in combination with the high levels of chromium and molybdenum 254 SMO possesses good resistance to stress corrosion cracking.

Limiting Chemical Composition %

Ni.....	17.5-18.50	Mn.....	1.0
MO.....	6.00-6.50	Cu.....	0.50-1.00
Cr.....	19.50-20.50	S.....	0.01
P.....	0.03	Si.....	0.80
C.....	0.02	N.....	0.18-0.22

STAINLESS STEEL

Stainless Steel is essentially a low carbon steel which contains chromium at 10% or more by weight. It is this addition of chromium that gives the steel its unique stainless corrosion resisting Properties. The corrosion resistance and other useful properties of the steel are enhanced by increased chromium content and the addition of other elements such as molybdenum, nickel and nitrogen.

Chemical Composition of Stainless Steel										Nearest Equivalent Specification		
AISI Grade	C Max	Mn Max	P Max	S Max	Si Max	Cr	Ni	Mo	Other Element	I.S.	En'	Din
Austenitic												
201	0.15	5.5/7.5	0.06	0.03	1	16.0/18.0	3.5/5.5	-	-	-	-	-
202	0.15	7.5/10	0.06	0.03	1	17.0/19.0	4.0/6.0	-	-	-	-	-
301	0.15	2.0max	0.045	0.040	1.0	16.0/18.0	6.0/8.0	-	-	10Cr17Ni7	-	1.4310
302	0.15	2.0	0.045	0.030	1.0	17.0/19.0	8.0/10.0	-	E-4-3-4%	07Cr18Ni9	En-58A	-
302HQ	0.03	2.0	0.045	0.03	1	17.0/19.0	9.0/10.0	-	CU:3-4.0	-	-	-
303	0.15	2.0	0.045	0.15 min	1.0	17.0/19.0	8.0/10.0	-	E-4-1%Max	15Cr18Ni9	En-58M	-
303EHS	0.15	2.0	0.02	0.3-0.33	1	17.0/19.0	8.0/10.0	-	CU:1%Max	-	-	-
304	0.08	2.0	0.045	0.030	1.0	18.0/20.0	8.0/10.0	-	-	04Cr18Ni10	En-58E	1.4301
304L	0.030	2.0	0.045	0.030	1.0	18.0/20.0	8.0/12.0	-	-	02Cr18Ni11	-	1.4306
304H	0.05	2.0	0.045	0.03	1	18.0/20.0	8.5/9.5	-	CU:2-2.50	-	-	1.4948
308	0.08	2.0	0.040	0.030	1.0	18.0/21.0	10.0/12.0	-	-	-	-	-
308LER	0.02	1.5/2.0	0.025	0.02	0.5	19.0/21.0	9.5/11.0	-	-	-	-	-
309	0.20	2.0max	0.045	0.030	1.0	22.0/24.0	12.0/15.0	-	-	20Cr24Ni12	-	-
309LER	0.03	1.5/2.5	0.02	0.015	0.5	23.0/25.0	12.0/14.0	-	-	-	-	-
309S	0.08	2.0	0.045	0.030	1.0	22.0/24.0	12.0/15.0	-	-	-	-	1.4833
310	0.25	2.0	0.045	0.030	1.50	24.0/26.0	19.0/22.0	-	-	10Cr25Ni12	-	-
310S	0.08	2.0	0.045	0.030	1.50	24.0/26.0	19.0/22.0	-	-	-	-	1.4845
314	0.25	2.0	0.040	0.030	1.5 / 3	25.0/26.0	19.0/22.0	-	-	-	-	-
316	0.08	2.0	0.045	0.030	1.0	16.0/18.0	10.0/14.0	2.0/3.0	-	04Cr17Ni12Mo2	En 58H	1.4401
316L	0.030	2.0	0.045	0.030	1.0	16.0/18.0	10.0/14.0	2.0/3.0	-	03Cr17Ni12Mo2	-	1.4404
316 LER	0.02	1.5/2.0	0.02	0.02	0.5	18.0/20.0	12.0/14.0	2.0/2.75	-	-	-	-
316Ti	0.080	2.0	0.045	0.030	1.0	16.0/18.0	10.0/14.0	2.0/3.0	Ti5xCmin	-	-	1.4571
317	0.08	2.0	0.045	0.030	1.0	18.0/20.0	11.0/15.0	3.0/4.0	-	-	-	-
317L	0.030	2.0	0.045	0.030	1.0	18.0/20.0	11.0/15.0	3.0/4.0	N:0.10/0.22	-	-	1.4438
317LN	0.03	2.0	0.045	0.03	1	18.0/20.0	11.0/15.0	3.0/4.0	N:0.10/0.22	-	-	1.4434
321	0.08	2.0	0.045	0.030	1.0	17.0/19.0	9.0/12.0	-	Ti5xCmin	04Cr18Ni10Ti20	En-58C	1.4878
347	0.08	2.0	0.045	0.030	1.0	17.0/19.0	9.0/12.0	-	Nb/Ta10xCmin	04Cr18Ni10Nb-40	En-58G	1.4550
904L	0.02	2.0	0.045	0.035	1	19.0/23.0	23.0/28.0	4.0-5.0	CU : 1-2	-	-	1.4539

Ferritic

410	0.15	1.00	0.04	0.03	1.0	11.50/13.5	0.60	-	-	12Cr13	En-56A	1.4006
416	0.15	1.25	0.06	0.15min	1.0	12.0/14.0	1.25/2.50	-	-	-	-	-
420	0.15min	1.0	0.04	0.03	1.0	12.0/14.0	0.06	-	-	-	En-56C&D	1.4034
430	0.12	1.0	0.04	0.03	1.0	16.0/18.0	0.06	-	-	07Cr17	En-60	1.4016
430L	0.03	1.0	0.04	0.03	1.0	16.0/18.0	0.06	-	-	-	-	-
430F	0.12	1.25	0.06	0.15min	1.0	16.0/18.0	0.60	-	-	-	-	-
431	0.2	1.0	0.04	0.03	1.0	15.0/17.0	1.25/2.5	-	-	-	En-57	-
17-4-PH	0.07	1.0	0.04	0.03	1.0	15.0/17.0	3.0/5.0	-	NB : 0.15/0.45	-	-	1.4542

Duplex

1905	0.03	1.2/1.8	0.04	0.03	1.2/2	18.0/19.0	4.3/5.2	2.5/3	N:0.5/0.10	-	-	-
2205	0.03	2	0.03	0.02	1.0	21.0/23.0	4.5/6.5	2.5/3.5	N : 0.8/0.20	-	-	1.4462
2507	0.03	1.2	0.035	0.02	0.80	24.0/26.0	6/8	3/5	N : 0.24/0.32 Cu : 0.50	-	-	1.4410

NICKEL ALLOYS TECHNICAL INFO OF NICKEL BASED ALLOYS

U.S.A. / GROSSBRITANNIE U.S.A. / GRANDE-BRETAGNE U.S.A. / GREAT BRITAN													
Analyses	Analyses Composition												
Handelsbezeichnung Designation Commercial Commercial designation	C%	Co%	Cr%	Mo%	Ni%	V%	W%	Al%	Cu%	Nb/Cb Ta%	Ti%	Fe%	Sonstige Autres -Other %
Monel 400	0.12	-	-	-	65.0	-	-	-	32.0	-	-	1.5	Mn 1.
Monel 401	0.10	-	-	-	43.0	-	-	-	53.0	-	-	0.75	Si 0.25; Mn z25
Monel 404	0.15	-	-	-	52.0-57.0	-	-	0.05	rest/bal	-	-	0.50	Mn 0.10; Si 0.10; S o.024
Monel 502	0.10	-	-	-	63.0-17.0	-	-	2.5-3.5	rest/bal	-	0.50	2.0	Mn 1.5; Si:so .010
Monel k 500	0.13	-	-	-	64.0	-	-	2.8	30.0	-	0.6	1.0	Mn 0.8
Monel B	0.10	1.25	0.60	28.0	rest/bal	0.30	-	-	31.0	-	-	1.2	Mn1.0;S0.04
Hastelloy B2	0.02	1.0	1.0	26.0-30.0	rest/bal	-	-	-	-	-	-	2.0	Mn1.0;Si0.10
Hastelloy C	0.07	1.25	16.0	17.0	rest/bal	0.30	40	-	-	-	-	5.75	Mn 1.0;Si 0 0.70
Hadselloy C4	0.015	2.0	14.0-18.0	140-17.0	rest/bal	-	-	-	-	-	0..70	3.0	Mn1.0;Si 00.70
Hastelloy C276	0.02	2.5	140-16.5	15.0-17.0	rest/bal	0.35	3.0-4.5	-	-	-	-	4.0-7.0	Mn 1.0;Si 0.05
Incoloy 800	0.04	-	21.0	-	32.0	-	-	0.3	-	-	0.4	45.0	-
Incoloy 801	0.05	-	20.5	-	32.0	-	-	-	-	-	1.1	45.0	-
Incoloy 802	0.35	-	21.0	-	32.0	-	-	0.6	-	-	0.7	45.0	-
Incoloy 804	0.05	-	29.5	-	41.0	-	-	0.3	-	-	0.6	25.4	-
Incoloy 805	0.12	-	7.5	0.50	36.0	-	-	-	0.10	-	-	rest/bal	Mn 0.60;Si 0.50
Incoloy 810	0.25	-	21.0	-	32.0	-	-	-	0.50	-	-	rest/bal	Mn 0.90; Si 0.80
Incoloy 825	0.04	-	21.0	3.0	42.0	-	-	-	2.0	-	1.0	30.0	-
Incoloy 901	0.05	-	12.5	6.0	rest/bal	-	-	-	-	-	2.9	34.0	Mn 0.24;0.12;00.015
Incoloy 903	0.02	15.0	-	-	38.0	-	-	0.7	-	Nb 3.0	1.4	41.0	-
Incoloy 904	0.02	14.0	-	-	33.0	-	-	-	-	-	1.7	50.0	-
Incoloy 600	0.05	-	15.5	-	75.0	-	-	-	-	-	-	8.0	-
Incoloy 601	0.05	-	23.0	-	60	-	-	1.4	-	-	-	14.0	-
Incoloy 610	0.20	-	15.5	-	rest/bal	-	-	-	0.50	Nb 1.0	-	9.0	Mn0.90;Si 2.0
Incoloy 617	0.07	12.5	22.5	9.0	54.0	-	-	1.0	-	-	-	-	-
Incoloy 625	0.05	-	21.5	9.0	61.0	-	-	0.60	-	Nb 3.65	0.60	2.5	Mn 05;Si 0.50
Incoloy671	0.07	12.5	22.5	9.0	51.0	-	-	-	-	-	0.35	-	-
Incoloy 700	0.12	28.5	15.0	3.75	46.0	-	-	3.0	0.05	-	2.20	0.70	Mn 0.10; Si 0.30
Incoloy 702	0.04	-	15.6	-	rest/bal	-	-	3.4	0.10	-	0.70	0.35	Mn 0.05; Si 0.20
Incoloy 705	0.30	-	15.5	-	rest/bal	-	-	-	0.50	-	-	8.0	Mn 0.90; Si 5.5

CHEMICAL COMPOSITION OF TITANIUM / NICKEL BASE ALLOYS

Grade	UNS Designation	C % Max	Mn % Max	P % Max	S % Max	Si % -	Ni %	Co %	Cu %	Ag %	Fe %	Pb %	Zn % Max	N %	Ti % Max	H % Max	O %
70/30 Cu-Nu	C 71500	0.05	1.0	0.02	0.02	-	29.0-33.0	-	-	-	0.40-1.0	0.02	0.50	-	-	-	-
90/10 Cu-Ni	C 70600	0.05	1.0	0.02	0.02	-	9.0-11.0	-	-	-	1.0-1.8	0.02	0.50	-	-	-	-
Titanium Gr. 2	R 50400	0.08	0.03	-	-	-	-	-	-	-	0.30	-	-	-	-	-	0.25
Titanium Gr. 1	R 50250	0.08	0.03	-	-	-	-	-	-	-	0.20	-	-	-	-	0.015	0.18
Type 17-4PH	-	0.07	1.00	0.04	0.03	1.00	3.00-5.00	3.00-5.00	0.15-0.45	-	-	-	-	-	-	-	-
Nickel 200	2200	0.15	0.35	-	0.01	0.35	99.0	-	-	-	0.40	-	-	-	-	-	-
Nickel 201	2201	-	0.35	-	0.01	0.35	99.0	-	0.25	-	0.40	-	-	-	-	-	-

Super Duplex

Nickel Alloys



Stainless Steel

Hastelloy

Inconel

Duplex Steel

Mayur Metal Industries



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Stainless Steel & Nickel Based Alloys
(Round Bars, Plates, Coils, Pipes & Flats)

Stainless Steel : 321, 317L, 347, 904L, (Rods / Shafts)

Duplex Steel : 2205, 2507, XERON 100
F-51, F-53, F-55, F-60

UNS : S31803, S32750, S32760

Monel 400, K 500, Inconel : 625, 825, 600, 800

Nickel, Hastelloy, Titanium

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