

INDIA'S FASTEST GROWING STEEL COMP



QUALITY THAT INSPIRES CUSTOMERS CONFIDENCE!

MANUFACTURERS OF :

- » ROUND BARS
- » WIRE RODS

STOCKIST, SUPPLIER & EXPORTERS OF:

- » PIPES
- » SHEET / COILS
- » FASTENERS
- » PIPE FITTINGS
- » FLANGES
- » ANGLE / CHANNEL





VIRAMI STEEL OF COMPANIES

COMPANY PROFILE

Virami Alloys Pvt. Ltd., founded in the year 2010, is a prominent Indian steel company, based in Mumbai. Providing the services of a Manufacturer, a Wholesaler and an Exporter, Bhansali Enterprise is a one-stop solution for all your Steel needs.

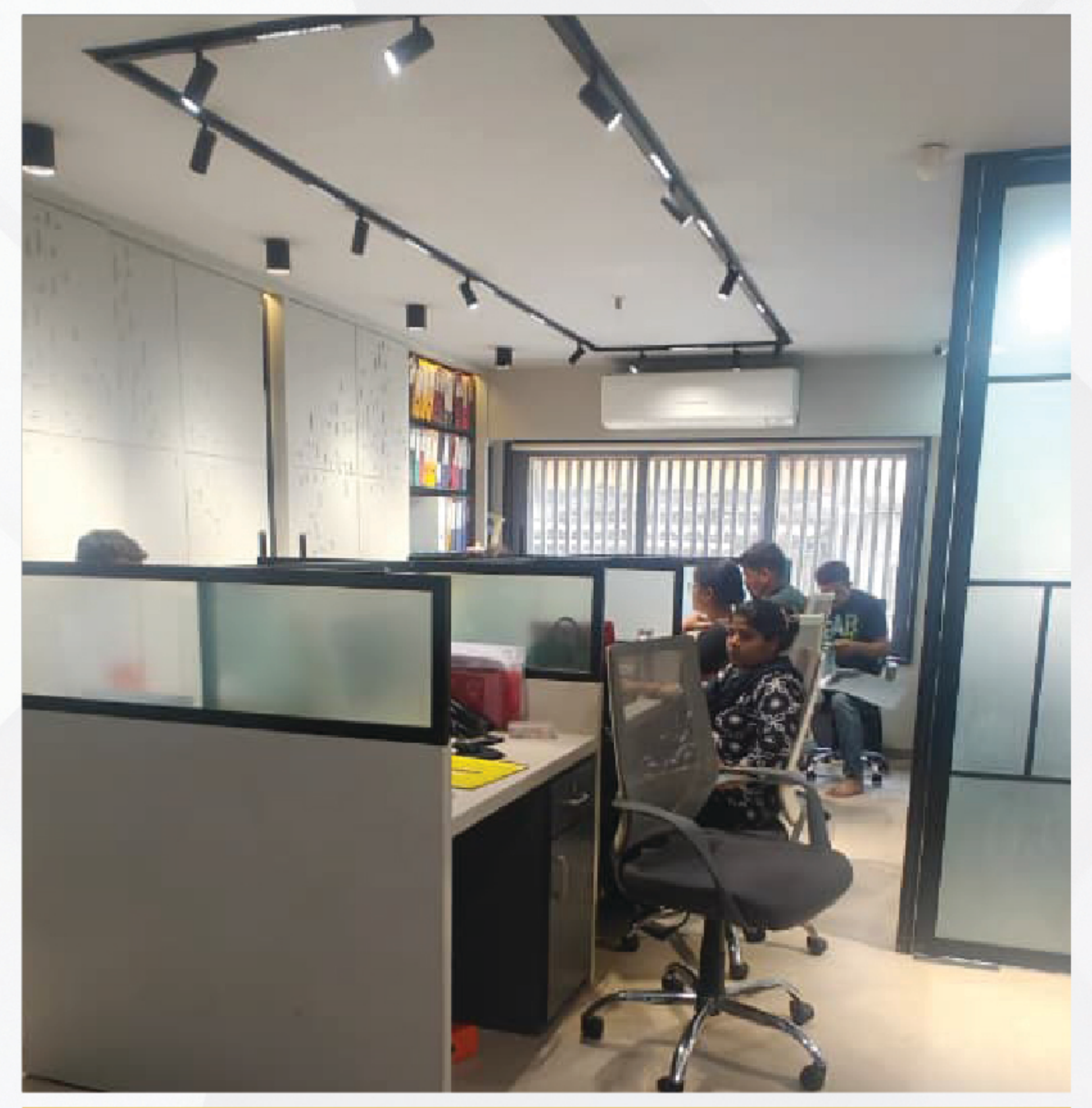
Led by **Mr. Piyush Mehta & Shrenik Jain**, BE strives to create a dominant presence in the Indian steel market through backward & forward integration. With his timeless business philosophy, backed by his resolve to serve his clients with integrity and dedication, BE is an optimistic corporation continuously scaling its operations to capture opportunities within & across the borders.

From the widest range of flat bars to a whole range of stainless steel products, BE has a unique product portfolio that caters to the markets across the steel value chain. Our manufacturing unit specializes in producing SS Round Bar, Hex Bar, Square Bar and Stainless Steel Wire in 200, 300 and 400 series. Apart from this, our product assortment includes Stainless steel bars, coils, pipes, flanges & pipe fittings, angles, flat bar & fasteners, etc. You name a steel product and we have it! For a complete list of our offerings, please check the product list on our website

Its superior strength, optimum performance, and longer service life are owed to the best grade raw materials and latest machines used. In line with the norms and guidelines defined by the industry. Apart from this, the offered collection is provided in the market at the most economical price possible. To cater the diverse demands of our clients, we are offering these products in various configurations.

The highly state-of-the-art infrastructure facility at **Virami Steel Hub** undergoes regular update, for reasons of attaining a reputable and dynamic position in the industry and to maintain high production capacity so that we can cater large quantity demands in limited time. Armed with all the machines and equipment needed, we have been able to develop the offered products as per the modern market developments. In order to attain streamlined and hassle-free management of the firm's operations, the facility has been parted into several functional units.

The future of **Virami Group** is led by Arpit and **Shrenik Jain** carrying forward a strong legacy. We continue to uphold our core values while striving for greater growth and excellence. With a skilled and experienced team, we deliver a wide range of quality steel products. Our professionals ensure smooth operations with a well-structured approach. We work closely with customers to understand their exact needs. Regular training helps our team stay updated and perform at their best.



QUALITY MANAGEMENT SYSTEM

Quality Assurance at **Virami Steel Hub** starts with understanding the Customers Requirement and continues till the customer is completely satisfied with the delivery of products and services. Quality Control procedures are well defined and thoroughly implemented. Virami Steel Hub is built for result oriented work culture, to fulfill customer's needs in terms of Cost, Quality and Delivery. By enhancing effectiveness of people and plant equipment safely we are aiming towards zero losses. We also believe in continual improvement for effectiveness of Quality Management System through Team Work, Training and Focus on Actions and Results.

Quality Assurance:-

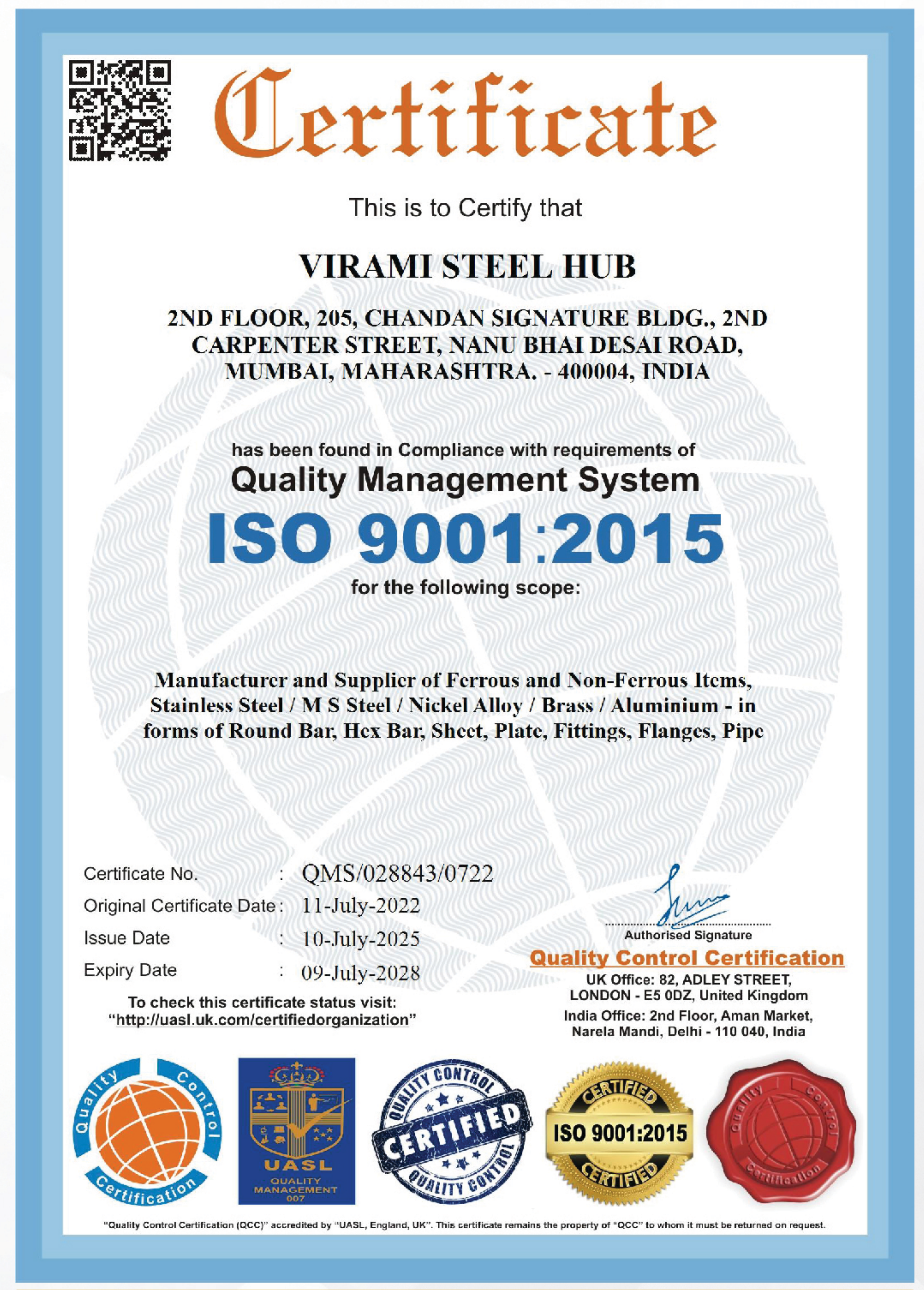
The quality assurance system is guided by principles that support our unique working culture which incorporates respect, self management, open communication and creativity.

These principles are:

- » We strive to be the best in our industry.
- » We care about our customers.
- » We do our absolute best to honor our commitments.
- » We strive to always act with integrity and fairness.

Our Excellence:-

Quality is our prime concern. We are able to maintain high quality standards through our committed personnel and sound infrastructure. We ensure that: finest quality material is used for our products. To ensure the quality of each material, we are providing Materials Test Certificate along with supply. Our team of experts maintain a vigil on the quality of the products. Every single piece is attached with test certificates and reports. We are continually improving our quality to serve our clients better.





WIRE & FILLER WIRE

Virami Steel Hub is engaged in the manufacturing of high-quality stainless steel wires in India. We manufacture stainless steel wires in an extensive size range from 0.39 mm to 15 mm. Our wires division is well equipped to manufacture high-quality products having in-house facilities for solution annealing, bright annealing (continuous strand annealing), dry and wet wire drawing, high-speed drawing, medium wire pattern laying, fine wire spooling, layer winding, random winding, TIG wire straightening & cutting facilities to name a few. These wires are widely used for joining unalloyed, cast steel grades or stainless steels, low alloy steels, heat-resistance chromium steels, cast steel grades, cast steel grades to austenitic steels, as well as for overlay cladding.



SPECIFICATIONS OF WIRE & FILLER WIRES	
Standard:	ASTM A580, A313, A555, A492 / ASME SA580, SA313, SA555, SA492, AMS 5514
Dimensions:	ANSI/AWS-01-1992 and ASTM E2016-11 and RRW 360
Length:	Cut lengths: 0.125" to 72". No limit on spooled lengths
Diameter:	0004" to 0.040", 10 microns to 1.0 mm, 1/16" (1.6 mm), other sizes on request
Wire Density:	8.89 g/cm³
Ultimate Strength (≥ MPa):	530–750
Wire Resistance (Ω/m):	As standard
Wire Elongation (≥ %):	28–30
Surface:	Polished bright, smooth, bare, enamel, PTFE, ceramic, plate
Tempers:	From dead soft annealed to ultra spring temper
Welded Wire Mesh:	Roll width: 24", 36", 1 metre, 48", 72", 84" Roll length: 100 feet or 150 feet
Wire Mesh Weaving Methods:	Plain weave, twill weave, dutch weave
Condition:	M, Y, 1/2 Hard
Packaging:	Spool, reel, coil, bobbin, carrier (Custom packaging from 1 lb to 200 lb)
Test Certificates:	Tensile testing, hardness testing, metallographic inspection, corrosion testing, chemical analysis, wrap testing, elevated temperature testing, stress rupture testing (creep)

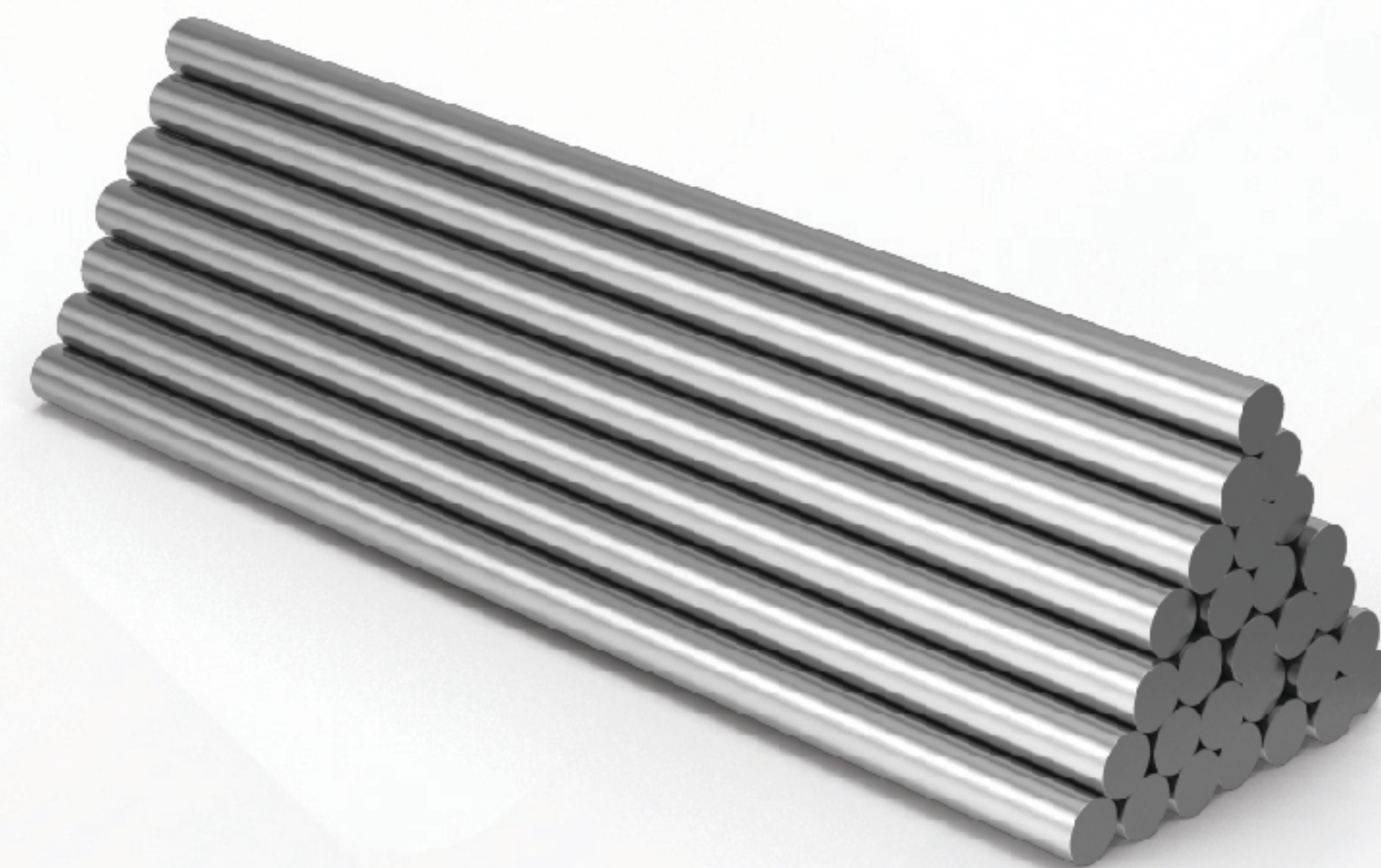
SPECIFICATIONS OF WIRE & FILLER WIRES	
Stainless Steel:	SS 200, 300, 400 Series, 15-5PH, 17-4PH, 13-8MO, Nitronic 50/60
Inconel:	Inconel 600, 601, 625, 693, X-750, 718, 800/800HT/825/925
Nickel:	Nickel 200, Nickel 201
Titanium:	Titanium Grade 1 / 2 / 5 / 7 / 9 / 23
Hastelloy:	Hastelloy C-276, C 2000, C 22
Monel:	Monel 400, Monel K-500
Duplex & Super Duplex:	UNS S32205, S32750, S32760, S31803, S31254
Copper & CuNi:	ETP, Commercial & CuNi 90/10, 70/30
Brass:	Free cutting, Brass C36000
Aluminium:	2014 / 2024 / 5052 / 5083 / 6061 / 6063 / 6082 / 7075



ROUND BAR

Our high-end manufacturing programme facilitates the manufacturing of high-quality rods & bars. Our own casting capacities that exceed our flexibility by being able to manufacture a wide range of alloys that help us attain excellent mechanical product properties & ability to manufacture rods, tubes & pipes out of more than 100 different chemical compositions.

Rods & bars are manufactured from billets cast by the company itself and 100% ultrasonic controlled after the homogenization process, providing for the quality of our products when applied in the most demanding industries such as automotive, aircraft & space industries.



SPECIFICATIONS OF ROUND / HEX / SQUARE BARS	
Specifications:	ASTM A276, ASTM A479, AMS 5513, AMS 5511, AMS 5647
Dimension Standard:	EN, DIN, JIS, ASTM, BS, ASME, AISI
Bar Diameter:	3 – 800 mm
Hex Bar Size:	2 – 100 mm A/F
Flat Bar Size:	Thickness: 2 – 100 mm, Width: 10 – 500 mm
Square Bar Size:	4 – 100 mm
Rectangular Bars:	Size: 33 × 30 mm to 295 × 1066 mm, Thickness: 3.0 to 12.0 mm
Hollow Bars:	32 mm OD × 16 mm ID to 250 mm OD × 200 mm ID
Billet Size:	½ to 495 mm Diameter
Finish:	Cold (bright) drawn, centreless ground, hot rolled, smooth turned, peeled, slit rolled edge, hot rolled annealed, rough turned, bright, polish, grinding, centreless ground & black
Tolerance:	H6, H9, H10, H11, H12, H13K9, K10, K11, K12 or as per client requirements
Bar Surface:	Bright, hot rolled pickled, cold drawn, sand blasting finished, polished, hairline
Rolled Bars Condition:	Hardened & tempered, annealed
Cold Rolled Bar Technique:	Hot rolled, cold drawn, cold rolled, forged round bar, rod

GRADES DEALING IN	
Stainless Steel:	SS 200, 300, 400 Series, 15-5PH, 17-4PH, 13-8MO, Nitronic 50/60
Inconel:	Inconel 600/601, Inconel 625/693, Inconel X-750, 718, Inconel 800/800HT/825/925
Nickel:	Nickel 200, Nickel 201
Titanium:	Titanium Grade 1 / 2 / 5 / 7 / 9 / 23
Hastelloy:	Hastelloy C-276, Hastelloy C 2000, Hastelloy C 22
Monel:	Monel 400, Monel K-500
Duplex & Super Duplex:	UNS S32205, UNS S32750, UNS S32760, UNS S31803, UNS S31254
Copper & CuNi:	ETP, Commercial & CuNi 90/10, 70/30
Brass:	Brass free cutting, Brass C36000
Aluminium:	2014 / 2024 / 5052 / 5083 / 6061 / 6063 / 6082 / 7075



SPECIALISED IN SUPER DUPLEX, HASTELLOY, TITANIUM & OTHER HIGH NICKEL ALLOYS

Virami Steel Hub was formed to cater to international markets in Stainless Steel, Duplex Steel & High Nickel Alloys. Virami Steel Hub is actively involved in exports and imports of various high nickel alloy products like Round Bars, Sheets/Sheet Coils, Pipes, Scrap, Pipe Fittings, Flanges, Valves & Pumps. It also has a strong presence in the domestic market in high-tech industries.



SPECIFICATIONS OF HIGH NICKEL ALLOYS	
Specifications	ASME SB160 / ASME SB164, ASME SB408, ASME SB409, ASME SA403, SA516, SA240, SA182, ASTM A276, ASTM A479, AMS 5513, AMS 5511, etc.
Dimension Standard	EN, DIN, JIS, ASTM, BS, ASME, ANSI
Bar Diameter	3 mm – 800 mm
Seamless Pipe Sizes	1/2" NB – 16" NB
Welded Pipe Sizes	1/2" NB – 24" NB
Fittings Size	Seamless Butt Weld Fittings: 1/2" – 10" Welded Butt Weld Fittings: 1/2" – 48"
Flanges Size	1/2" (15 NB) to 48" (1200 NB), DIN 10 – DIN 5000
Sheets / Plates Width	1000 mm, 1219 mm, 1500 mm, 1800 mm, 2000 mm, 2500 mm, 3000 mm, 3500 mm, etc.
Sheets / Plates Thickness	4 mm – 100 mm
Sheets / Plates Length	2000 mm, 2440 mm, 3000 mm, 5800 mm, 6000 mm, etc.
Bolt / Screw Size	M3 – M56 3/16" to 2" Custom Sizes
Nuts Size	M3 – M56 3/16" to 2" Custom Sizes
Washers Size	M3 – M56 3/16" to 2" Custom Sizes
Machine Screws Size	M1.6 – M12
Self Tapping Screw Size	No. 2 – No. 14
Length	3 mm to 200 mm

GRADES DEALING IN	
Inconel	Inconel 600, 601, 625, 690, Inconel X-750, 718, Inconel 800/800H/825/925
Nickel	Nickel 200, Nickel 201
Titanium	Titanium Grade 1, 2, 5, 7, 9, 23
Hastelloy	Hastelloy C-276, Hastelloy C-2000, Hastelloy C-22
Monel	Monel 400, Monel K-500
Duplex & Super Duplex	UNS S32205, UNS S32750, UNS S32760, UNS S31803, UNS S31254



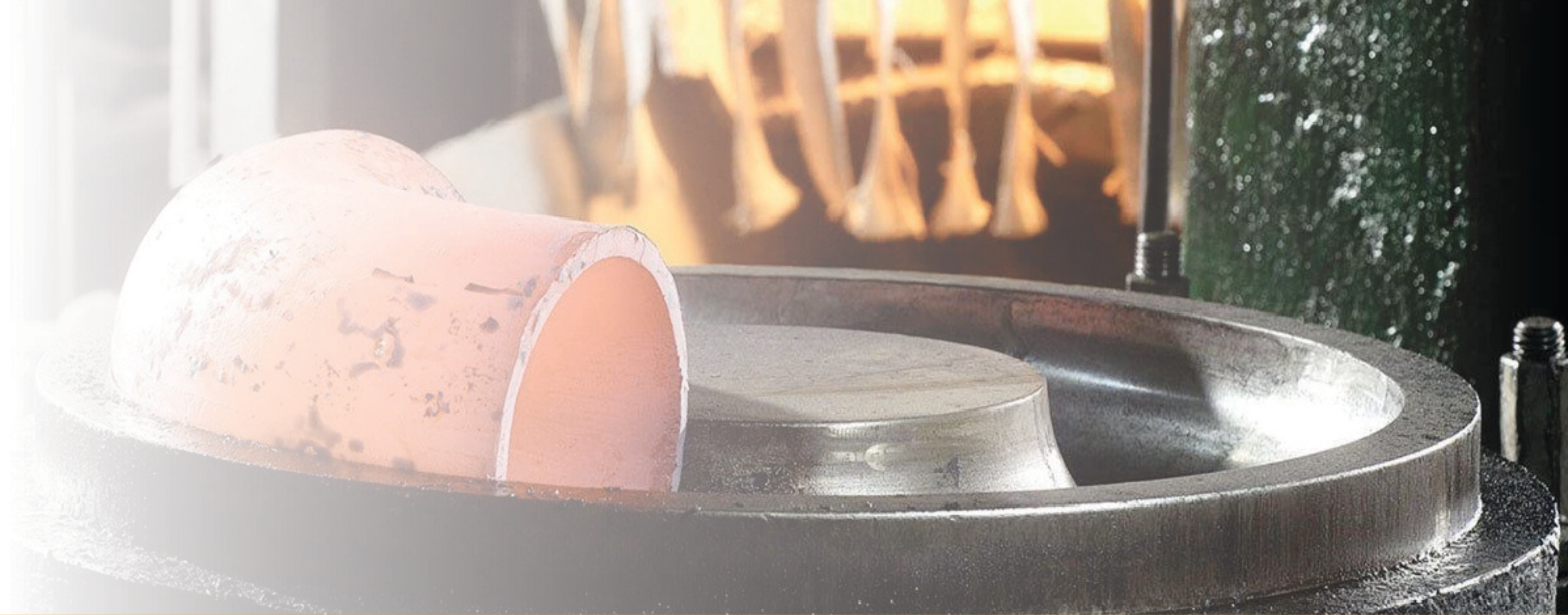
PIPES & TUBES

A pipe is a tubular section or hollow cylinder, usually but not necessarily of circular cross-section, used mainly to convey substances which can flow liquids and gases (fluids), slurries, powders and masses of small solids. Steel pipe is durable, rust resistant, easy to install and highly customizable, making it a top choice in a wide range of industries including construction, shipbuilding, textile, agricultural, oil and gas, and more. Steel pipe is commonly used in Power Plants, Dairy & Food Processing Facilities, Modern Architecture, Chemical Facilities, Water Treatment Facilities etc.



SPECIFICATIONS OF PIPES & TUBES	
Pipe Standard	ASTM A312, ASME SA312 / ASTM A358, ASME SA358
Tube Specifications	ASTM A213, A269, A249, A511, A554 / ASME SA213, SA269, SA249, SA511, SA554
Pipe Dimension	ANSI/ASME B36.19M, ANSI/ASME B36.10M
Seamless Pipe Sizes	1/2" NB – 16" NB
Welded Pipe Sizes	1/2" NB – 24" NB
EFW Pipe Size	6" NB – 24" NB
Seamless Tube Sizes	1/2" NB – 16" NB
Welded Tube Sizes	1/2" NB – 24" NB
Outside Diameter	6.00 mm OD up to 914.4 mm OD, sizes up to 24" NB available ex-stock
Manufacturing Process	Seamless / Welded / ERW / Fabricated / CDW / 100% X-Ray Welded
Pipe Shapes	Hydraulic, Round, Rectangle, Square, Hex, Honed
Schedule	SCH 5, SCH 10, SCH 40, SCH 80, SCH 160, SCH XXS
Outside Finish	2B, No.4, No.1, No.8 Mirror Finish for stainless steel pipes. Finish as per customer requirements
Form	Round, Rod, T-Bar, Channel Bar, Precision Ground Bar, Flat Bar, Square Blocks, Round Rod, Rings, Hollow, Triangle, Rectangle, Hex (A/F), Threaded, Half Round Bar, Profile, Billet, Ingot, I/H Bar, Forging etc.
Length	Single Random, Double Random, Standard & Cut Length

GRADES DEALING IN	
Stainless Steel	SS 200, 300, 400 Series, 15-5PH, 17-4PH, 13-8Mo, Nitronic 50/60
Inconel	Inconel 600/601, Inconel 625/690, Incoloy 800/825/925
Nickel	Nickel 200, Nickel 201
Titanium	Titanium Grade 1 / 2 / 5 / 7 / 9 / 23
Hastelloy	Hastelloy C-276, Hastelloy C-2000, Hastelloy C-22
Monel	Monel 400, Monel K-500
Duplex & Super Duplex	UNS S32205, UNS S32750, UNS S32760, UNS S31803, UNS S31254



PIPE FITTINGS

Pipe fittings are as numerous and confusing as choosing the right screw or nail for a construction project. The materials vary, and the specific purpose, although precise, seems daunting to figure out. Our plumbers in Houston & Rosenberg can help repair or replace your piping. We can help repair and repipe gas lines and water lines; whatever you need, our plumbers can help! Here is a brief overview of pipe fittings, their purpose, and the materials offered.



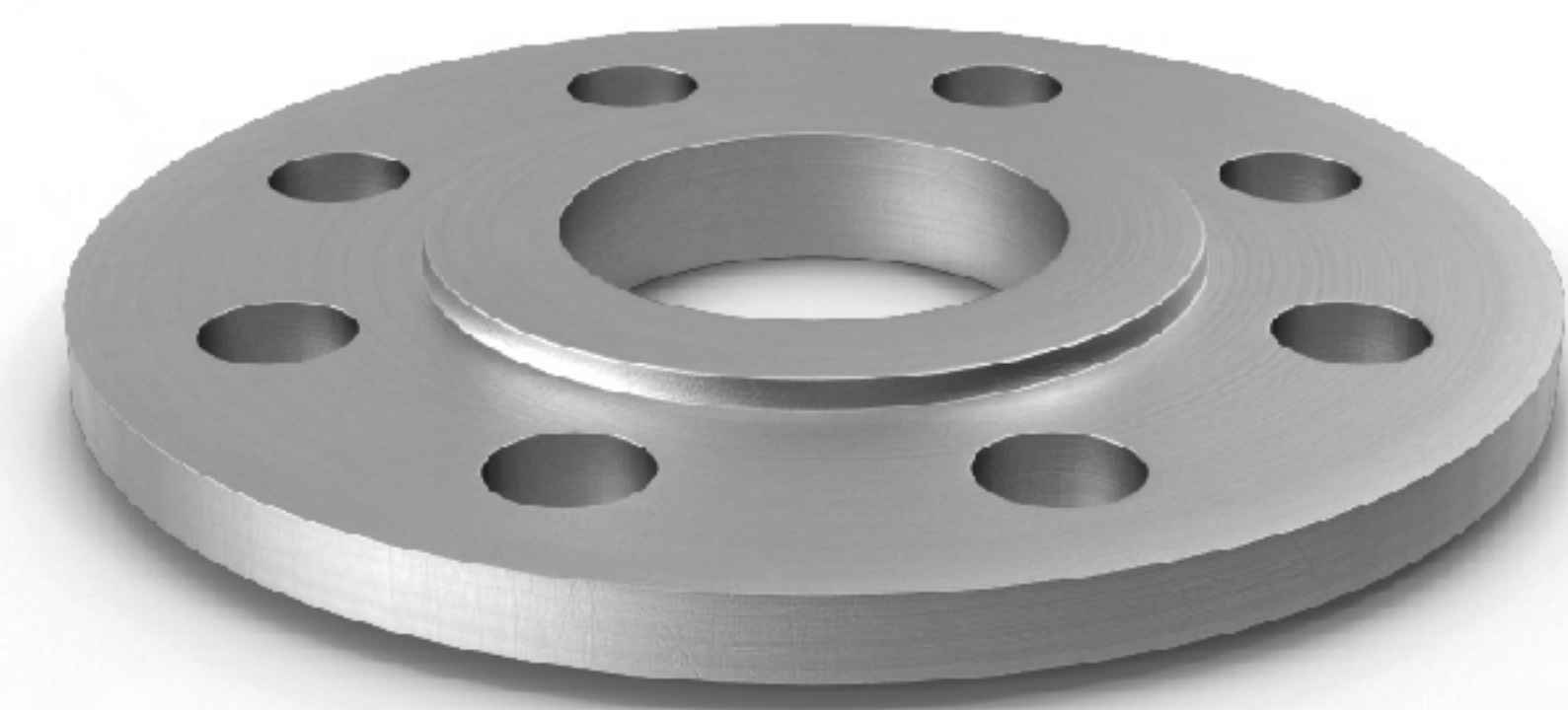
SPECIFICATIONS OF FITTINGS	
Standards	ASTM A403 / ASME SA403
Dimensions	ASME/ANSI B16.9, ASME B16.28, MSS-SP-43, BS4504, BS4504, BS1560, BS10
Size	Seamless Butt Weld Fittings: ½" – 10" Welded Butt Weld Fittings: ½" – 48"
Type	Seamless / Welded / Fabricated
Schedule	SCH 10, SCH 20, SCH 30, STD, SCH 40, SCH 60, XS, SCH 80, SCH 100, SCH 120, SCH 140, SCH 160, XXS available with NACE MR 01-75
Bending Radius	R = 1D, 2D, 3D, 5D, 8D, 10D or Custom
Form	90° Elbow, 45° Elbow, Long Radius Elbow, Short Radius Elbow, Concentric Reducer Eccentric Reducer, Equal Tee, Unequal Tee, Lateral Tee, Cross, Bends, 1.5D, 3D, 5D, 10D, U Bend, 180° Deg Bend, Short Stub End, Long Stub End, Concentric Reducer, End Cap, Dish Cap, Lap Joint Stub End

GRADES DEALING IN	
Stainless Steel	SS 200, 300, 400 Series, Nitronic 50/60
Inconel	Inconel 600/601, Inconel 625/693, Inconel X-750, 718, Inconel 800/800HT/825/925
Nickel	Nickel 200, Nickel 201
Titanium	Titanium Grade 1 / 2 / 5 / 7 / 9 / 23
Hastelloy	Hastelloy C-276, Hastelloy C-2000, Hastelloy C-22
Monel	Monel 400, Monel K-500
Duplex & Super Duplex	UNS S32205, UNS S32750, UNS S32760, UNS S31803, UNS S31254
Copper and CuNi	ETP, Commercial Copper C10100 / C10300
Brass	Free Cutting Brass, Brass C36000
Mild Steel	A105 / A106 / 1008 / 1010 / 1015 / 1018



FLANGES

Flanges are used to connect pipes with each other, to valves, to fittings, and to specialty items such as strainers and pressure vessels. A cover plate can be connected to create a "blind flange." Flanges are joined by bolting, and sealing is often completed with the use of gaskets or other methods. Usually, flanges are threaded or welded, and you can connect two flanges by bolting them with gaskets and providing a seal that gives easy access to the piping system.



SPECIFICATIONS OF FLANGES	
Standard	ASTM A182 / ASME SA182, ANSI Flanges, ASME Flanges, BS Flanges, DIN Flanges, EN Flanges
Dimension	ANSI/ASME B16.5, B16.47 Series A & B, B16.48, BS4504, BS10, EN 1092, DIN, ANSI Flanges, ASME Flanges, BS Flanges, DIN Flanges, EN Flanges, GOST Flange, ASME/ANSI B16.5 / B16.47 / B16.48 / MSS SP-44, ISO 7005-1, IS 6392, IS 6392, IS 1873, IS 6392
Flanges Size	½" (15 NB) to 48" (1200 NB); DN10 – DN5000
Flange Face Type	Raised Face (RF), Ring Type Joint (RTJ), Flat Face (FF), Large Male-Female (LMF), Lap Joint Face (LJF), Small Male-Female (SMF), Small Tongue, Large Tongue & Groove, Groove
Pressure Class	PN 2.5 to PN 400
Pressure Rating (ANSI)	Class 150 LBS, 300 LBS, 600 LBS, 900 LBS, 1500 LBS, 2500 LBS
Pressure Calculation in DIN	6 Bar, 10 Bar, 16 Bar, 25 Bar, 40 Bar; PN6, PN10, PN16, PN25, PN40, PN64
Table	D, E, F, H
Types	Forged / Threaded / Screwed / Plate
Form	Plate Flange, Loose Plate Flange, Loose Plate with Weld Neck Flange, Blank Flange, Welding Neck Flange, Hubbed Slip-on Flange, Hubbed Threaded Flange, Lapped Pipe End Flange
Flanges Marking	All flanges are marked as follows: Grade, Standard, Thickness, Heat No. (or according to the customer's request)

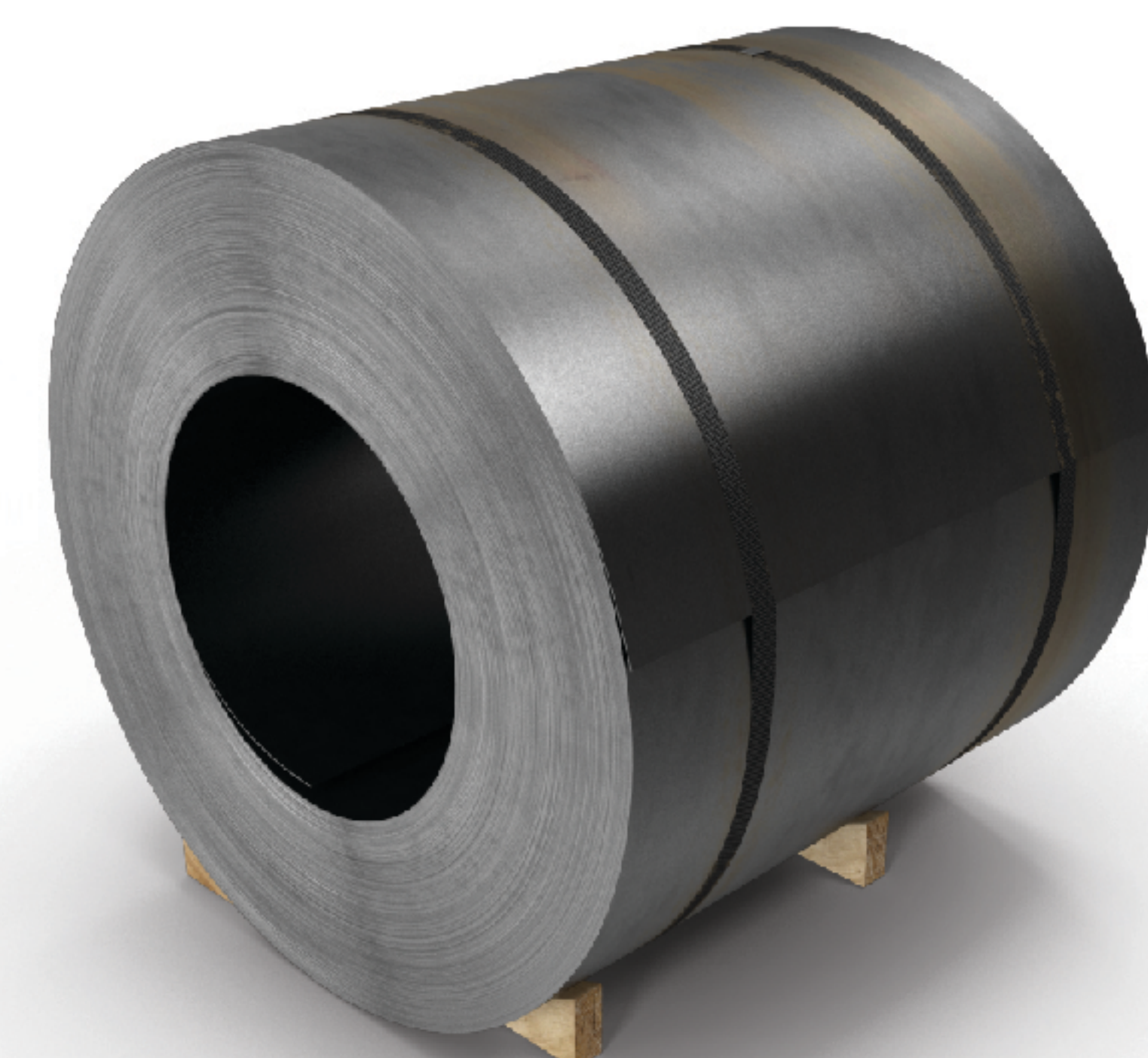
GRADES DEALING IN	
Stainless Steel:	SS 200, 300, 400 Series, Nitronic 50/60
Inconel:	Inconel 600/601, Inconel 625/693, Inconel X-750, 718, Inconel 800/800HT/825/925
Nickel:	Nickel 200, Nickel 201
Titanium:	Titanium Grade 1 / 2 / 5 / 7 / 9 / 23
Hastelloy:	Hastelloy C-276, Hastelloy C-2000, Hastelloy C-22
Monel:	Monel 400, Monel K-500
Duplex & Super Duplex:	UNS S32205, UNS S32750, UNS S32760, UNS S31803, UNS S31254
Copper and CuNi:	ETP, Commercial Copper C10100 / C10300
Brass:	Free Cutting Brass, Brass C36000
Mild Steel:	A105 / A106 / 1008 / 1010 / 1015 / 1018



SHEETS / PLATES / COILS

Stainless steel sheets & plates are 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.

Stainless steel coils are primarily used in the construction and industrial industries. As a non-based alloy, stainless steel comprises 11% of chromium, along with traces of nitrogen, aluminum, sulfur, silicon, titanium, nickel, copper, and selenium. It is rust and heat resistant.



SPECIFICATIONS OF SHEETS / PLATES / COILS

Standard	ASTM A240 / ASME SA240
Dimension	ASTM, ASME, and API
Sheets / Plates Width	1000mm, 1219mm, 1500mm, 1800mm, 2000mm, 2500mm, 3000mm, 3500mm, etc.
Sheets / Plates Thickness	4mm – 100mm
Sheets / Plates Length	2000mm, 2440mm, 3000mm, 5800mm, 5000mm, etc.
Surface Finish	No.1, 2B, BA, 8K Mirror, Hairline, Satin (Met with Plastic Coated), Embossed, Brush, No.4, HL matt, PVC, etc.
Value Added Services	Cladding, Heat Treatment, Annealed, Pickling, Polishing, Rolling, Cutting, Bending, Forging, Mirror Fabrication, etc.
Hardness	Half Hard, Quarter Hard, Soft, Hard, Spring Hard
Form	Coils, Foils, Rolls, Strips, Flats, Blank (Circle), Ring (Flange)

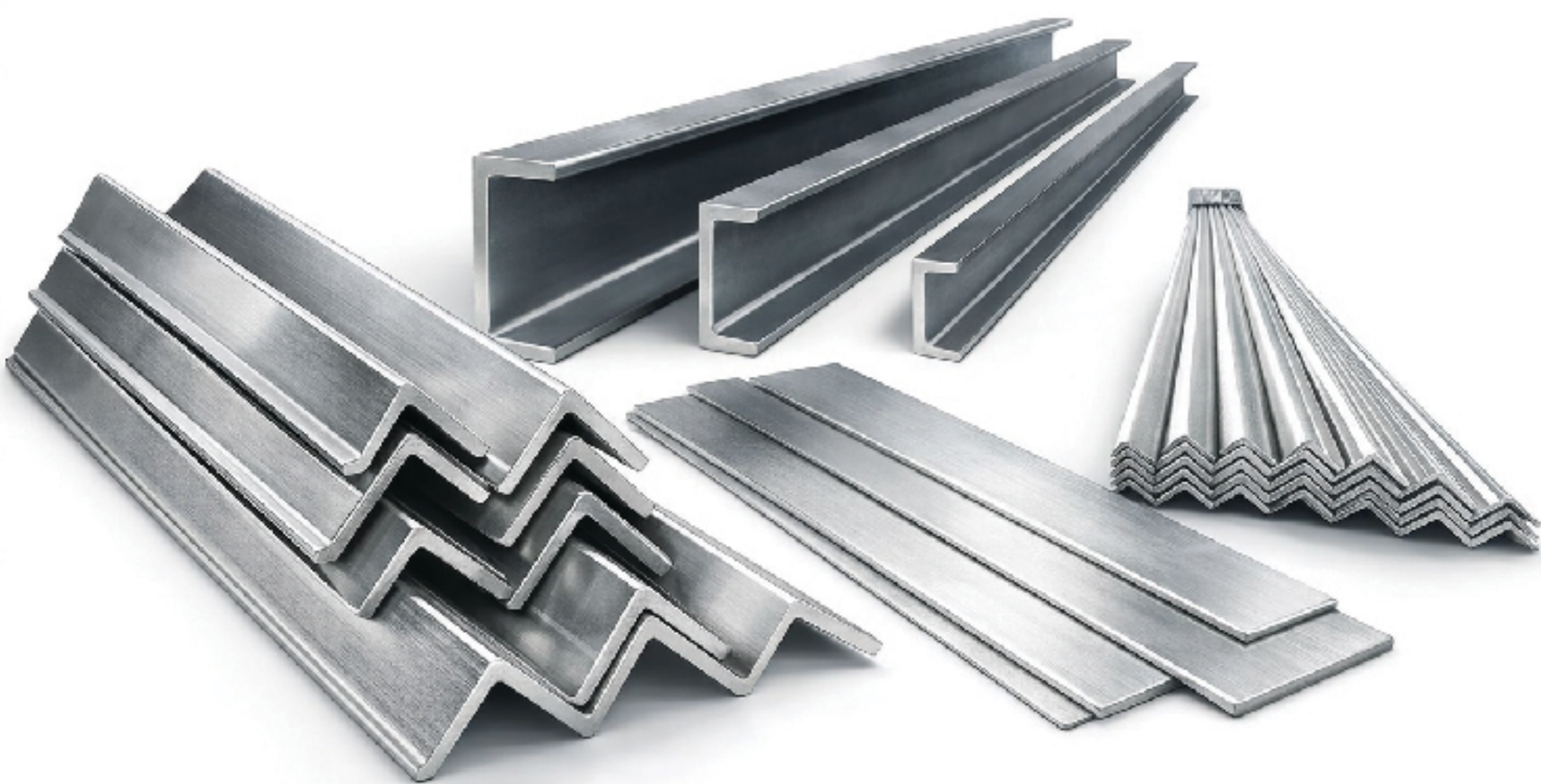
GRADES DEALING IN

Stainless Steel	SS 200, 300, 400 Series, 15-5PH, 17-4PH, 13-8Mo, Nitronic 50/60
Inconel	Inconel 600/601, Inconel 625/693, Inconel X-750, 718, Inconel 800/800HT/825/925
Nickel	Nickel 200, Nickel 201
Titanium	Titanium Grade 1 / 2 / 5 / 7 / 9 / 23
Hastelloy	Hastelloy C-276, Hastelloy C-2000, Hastelloy C-22
Monel	Monel 400, Monel K-500
Duplex & Super Duplex	UNS S32205, UNS S32750, UNS S32760, UNS S31803, UNS S31254
Copper and CuNi	ETP, Commercial Copper C10100 / C10300
Brass	Free Cutting Brass, Brass C36000
Aluminium	2014 / 2024 / 5052 / 5083 / 6061 / 6063 / 6082 / 7075
Mild Steel	A105 / A106 / 1008 / 1010 / 1015 / 1018



ANGLE / CHANNEL / FLAT

Angles, channels and flats are referred to in this specification as profiles. These profiles are produced by cold forming low carbon (hot rolled) steel strip. Steel angles, with their L-shaped design, serve as crucial supports and braces, while channels, with their C-shaped profile, are used for beam and column support, framing, and mounting. Both angles and channels are made from high-strength structural steel, making them durable and long-lasting. They are used in equipment such as conveyors, storage tanks, and processing machinery. Bars are used in medical applications such as surgical instruments, implants, and medical equipment. Marine applications such as tugs and shipbuilding, offshore drilling, and underwater applications used stainless steel flat bars.



SPECIFICATIONS OF ANGLE / CHANNEL / FLAT	
Standard	ASTM A 276/A 276M, A 484/A 484M, A 564/A 564M, A 582/A582M, A 638/A 638M, A705/A705M
Dimension	EN, DIN, JIS, ASTM, BS, ASME, AISI
Angle Sizes	5mm to 9mm
Flat Sizes	2mm – 100mm etc
Thickness	3.0mm – 120mm
Length	3MTR, 4MTR, 5MTR, 6MTR or Custom Cut Sizes
Manufacturing Process	Hot rolled (HR), Cold rolled (CR), Galvanized etc

GRADES DEALING IN:	
Stainless Steel	SS 200, 300, 400 Series
Inconel	Inconel 600/601, Inconel 625/693, Inconel X-750, 713, Inconel 800/800HT/825/925
Nickel	Nickel 200, Nickel 201
Titanium	Titanium Grade 1 / 2 / 5 / 7 / 9 / 23
Hastelloy	Hastelloy C-276, Hastelloy C 2000, Hastelloy C 22
Monel	Monel 400, Monel K-500
Duplex & Super Duplex	UNS S32205, UNS S32750, JIS S32760, UNS S31803, UNS 31254
Copper and CuNi	ETP, commercial & CuNi 90/10, 70/30
Brass	Brass free cutting, Brass C36000
Aluminium	2014 / 2024 / 5052 / 5083 / 6061 / 6063 / 6082 / 7075
Mild Steel	A105 / A106 / 1008 / 1010 / 1015 / 1018



FASTENER

Fasteners are used to mechanically join two or more objects together, either permanently or non-permanently. There are many different types of fasteners, each with their own use. Fasteners can broadly be categorised as either Permanent or Non-Permanent. Permanent fasteners, such as rivets and nails, are single-use fasteners that are designed to permanently join two materials or parts. Removing the fastener destroys it.



SPECIFICATIONS OF FASTENERS

Standard	ASTM F593, F594, A193, A194, ASME SF593, F594, SA193, SA194
Bolt / Screw Size	M3 – M56 3/16” to 2” Custom Sizes
Nuts Size	M3 – M56 3/16” to 2” Custom Sizes
Washers Size	M3 – M56 3/16” to 2” Custom Sizes
Machine Screws Size	M1.6 – M12
Self Tapping Screw Size	No.2 – No.14
Length	3 mm to 200 mm
Threads	UNF, BSW, 55F, METRIC, UNC, or as required
Form	Hex, Threading, Square, Round as per Gauge etc.
Dimensions	DIN 931, 933, 934, 7991, 976, 125, ASME B18.2.1, B18.3
Threads (Note)	Unless otherwise specified, the threads shall be rolled or cut & tapped horizontally or vertically
Types	Bolts, Nuts, Stud Bolts, Washers, Threaded Rod, Anchor Fasteners, Eye Bolt, Stud, Cotter Pin, Socket Screw, Fine Fasteners & Spares, Foundation Fasteners, Hexagon Castle Nuts, Hexagon Domed Cap Bolts, Hexagon Thin Nuts etc.

GRADES DEALING IN:

Stainless Steel	SS 200, 300, 400 Series, 15-5PH, 17-4PH, 13-8MO, Nitronic 50/60
Inconel	Inconel 600/601, Inconel 625/693, Inconel X-750, 718, Inconel 800/800HT/825/925
Nickel	Nickel 200, Nickel 201
Titanium	Titanium Grade 1 / 2 / 5 / 7 / 9 / 23
Hastelloy	Hastelloy C-276, Hastelloy C 2000, Hastelloy C 22
Monel	Monel 400, Monel K-500
Duplex & Super Duplex	UNS S32205, UNS S32750, UNS S32760, UNS S31803, UNS S31254
Copper and CuNi	ETP, commercial & CuNi 90/10, 70/30
Brass	Brass free cutting, Brass C36000
Aluminium	2014 / 2024 / 5052 / 5083 / 6061 / 6063 / 6082 / 7075
Mild Steel	A105 / A106 / 1008 / 1010 / 1015 / 1018



CHEMICAL COMPOSITION OF STAINLESS STEEL

Chemical Composition of Stainless Steel											Nearest Equivalent Specification		
USN NO	EN	BS	AISI Grade	C Max	Mn Max	P Max	S Max	Si Max	Cr	Ni	Mo	Cu	I.S

Austentic

S20100	-	-	201	0.15	5.5/7.5	0.06	0.03	1	16.0/18.0	3.5/5.5	-	-	-
S20200	-	-	202	0.15	7.5/10	0.06	0.03	1	17.0/19.0	4.0/6.0	-	-	-
S30100	-	301S21	301	0.15	2.0max	0.045	0.040	1.0	16.0/18.0	6.0/8.0	-	-	10Cr17Ni7
S30100	-	-	302	0.15	2.0	0.045	0.030	1.0	17.0/19.0	8.0/10.0	-	-	07Cr18Ni9
S30300	-	303S31	303	0.15	2.0	0.0450.	15 min	1.0	17.0/19.0	8.0/10.0	-	-	15Cr18Ni9
S30400	1.4301	-	304	0.15	2.0	0.045	0.030	1.0	18.0/20.0	8.0/10.0	-	-	04Cr18Ni10
S30403	1.4307	304S11	304L	0.08	2.0	0.045	0.030	1.0	18.0/20.0	8.0/12.0	-	-	02Cr18Ni11
S30453	1.4306	304S61	304LN	0.030	2.0	0.045	0.03	0.75	18.0/20.0	8.0/11.0	-	-	-
S30409	-	-	304H	0.05	2.0max	0.045	0.030	1	18.0/20.0	8.5/9.5	-	-	-
S30900	1.4833	309S16	309	0.20	2.0	0.045	0.030	1.0	22.0/24.0	12.0/15.0	-	-	20Cr24Ni12
S30908	-	-	309	0.08	2.0	0.045	0.030	1.0	22.0/24.0	12.0/15.0	-	-	-
S31009	1.4845	-	310H	0.25	2.0	0.045	0.030	1.50	24.0/26.0	19.0/22.0	-	-	10Cr25Ni12
S31008	-	-	310S	0.08	2.0	0.045	0.030	1.50	24.0/26.0	19.0/22.0	-	-	-
S31600	1.4404	316S31	316	0.08	2.0	0.045	0.030	1.0	16.0/18.0	10.0/14.0	2.0/3.0	-	04Cr17Ni12Mo2
S31603	-	316S11	316L	0.030	2.0	0.045	0.030	1.0	16.0/18.0	10.0/14.0	2.0/3.0	-	03Cr17Ni12Mo2
S31653	1.4571	316S61	316LN	0.030	2.0	0.045	0.030	0.75	16.0/18.0	10.0/14.0	2.0/3.0	-	-
S31635	-	317S12	316Ti	0.08	2.0	0.045	0.030	1.0	16.0/18.0	10.0/14.0	2.0/3.0	-	-
S31700	-	320S31	317	0.08	2.0	0.045	0,030	1.0	18.0/20.0	11.0/15.0	2.0/3.0	-	-
S31703	-	-	317L	0.030	2.0	0.045	0,030	1.0	18.0/20.0	11.0/15.0	3.0/4.0	-	-
S31753	1.4541	317S12	317LN	0.03	2.0	0.045	0.03	1	18.0/20.0	11.0/15.0	3.0/4.0	-	-
S32100	-	-	321	0.08	2.0	0.045	0.030	1.0	17.0/19.0	9.0/12.0	-	-	04Cr18Ni10Ti20
S34700	S34700	321S31	347	0.08	2.0	0.045	0.030	1.0	17.0/19.0	9.0/12.0	-	-	04Cr18Ni10Nb-40
N08904	1.4539	-	904	0.02	2.0	0.045	0.035	1	19.0/23.0	23.0/28.0	4.0-5.0	-	-

Ferritic

S41000	-	410S21	410	0.15	1.00	0.040	0.030	1.0	11.50-13.50	0.75	-	-	S20200
S41008	1.4000	403S17	410S	0.08	1.00	0.040	0.030	1.0	11.50-13.50	0.60	-	-	S20200
S42900	-	-	429 ^o	0.12	1.00	0.040	0.030	1.0	14.00-16.00	-	-	-	S30100
S43000	1.4016	430S17	430	0.12	1.00	0.040	0.030	1.0	16.00-18.00	0.75	-	-	S30100
S43035	-	-	439	0.07	1.00	0.040	0.030	1.0	17.00-19.00	0.050	-	0.04	S30300
-	-	-	-	-	-	-	-	-	-	-	-	-	S30400
-	-	-	-	-	-	-	-	-	-	-	-	-	S30400
S30400	-	-	444	0.025	1.00	0.040	0.030	1.0	17.5-19.5	1.00	1.75-2.50	0.035	S30400
-	-	-	446	0.20	1.50	0.040	0.030	0.50	11.40 /-13.00		-	-	S30400
-	-	-	409L	≤ 0.030	\$1.00	≤1.00	-	-	-	10.50~11.75	-	-	S30400

Duplex & Super Duplex

S31803	1.4462	-	0.030	2.00	0.030	0.020	10	21.0-23.0	4.5-6.5	2.5-3.5	-	S41000	0.08-0.20
S32550	-	255 ^o	0.040	1.50	0.040	0.030	1.0	24.0-27.0	4.5-6.5	2.9-3.9	3.0-4.0	S41000	0.10-0.25
S32750	1.441	2507	0.030	1.20	0.035	0.020	0.8	24.0-26.0	6.0-8.0	3.0-5.0	0.50	S41000	0.24-0.32
S41000	-	-	0.030	1.00	0.030	0.010	1.0	24.0-26.0	6.0-8.0	3.0-4.0	0.50-1.00	S41000	0.20-0.30



CHEMICAL COMPOSITION OF STAINLESS STEEL

Material	UNS no	Werkst. Nr.no	Ni MinNr.no	Co max	Cr	Mo	W	Fe max	Si max	Mn max	C max	Cu max	Ai max	Ti max	S max	P max	Density	Bar Billet	Flanges	Forging	Tube	Pipe	Plate	Fitting
																					SMLS/WLD			
Alloy 200	N02200	2.4066	99.0	-	-	-	-	0.4	0.35	0.35	0.15	0.25	-	-	0.01	-	8.89	B160	B564	B564	B163/ B730	B161/ B725	B162	B366
Alloy 201	N02201	2.4068	99.0	-	-	-	-	0.4	0.35	0.35	0.02	0.25	-	-	0.01	-	8.89	B160	-	-	B163 B730	B161/ B725	B162	B366
Alloy 400	N04400	2.4360	63.0	-	-	-	-	2.5	0.5	2.0	0.30	28-34	-	-	0.024	-	8.83	B164	B564	B564	B163/ B730	B165/ B725	B127	B366
Alloy K500	N05500	2.4375	63.0	-	-	-	-	2.0	0.5	1.5	0.25	27-33	2.3- 3.2	0.4- 0.9	0.01	-	8.46	B865	B865	B865	-	-	-	-
Alloy 600	N06600	2.4816	72.0	-	14-17	-	-	6-10	0.5	1.0	0.15	0.5	-	-	0.024	-	8.42	B166	B564	B564	B163/ B516	B167/ B517	B168	B366
Alloy 601	N06601	2.4851	58.63	-	21-25	-	-	Rest	0.5	1.0	0.10	1.0	11-1.7	-	0.015	-	8.20	B166	-	-	B167	B167	B168	B366
Alloy 625	N06625	2.4856	58.0	1.0	20-23	8-10	-	5.0	0.5	0.5	0.10	-	0.4	0.4	0.015	0.015	8.44	B446	B564	B564	B444/ B704	B444/ B705	B443	B366
Alloy 800	N08800	1.4876	30-35	-	19- 23.5	-	-	Rest	1.0	1.5	0.10	0.75	0.15- 0.6	0.15- 0.6	0.015	-	8.00	B408	B564	B564	B163/ B515	B407 B514	B409	B366
Alloy 800H	N08810	1.4876	30-35	-	19- 23.5	-	-	Rest	1.0	1.5	0.05- 0.1	0.75	0.15- 0.6	0.15- 0.6	0.015	-	8.00	B408	B564	B564	B163 B515	B407 B514	B409	B366
800HT Alloy	N08811	1.4876	30-35	-	19- 23	-	-	Rest	1.0	1.5	0.06- 0.1	0.75	0.15- 0.6	0.15- 0.6	0.015	-	8.00	B408	B564	B564	B163 B515	B407 B514	B409	B366
Alloy 825	N08825	2.4858	38-46	-	19- 23.5	2.5 3.5	-	Rest	0.5	1.0	0.05	1.5-3	0.2	0.5- 1.2	0.03	-	8.18	B425	B564	B564	B163/ B704	B423/ B705	B424	B366
Alloy C276	N10276	2.4819	Rest	2.5	14- 16.5	15- 17	3- 4.5	4-7	0.08	1.0	0.01	-	-	-	0.03	0.04	8.87	B574	B564	B564	B622/ B619	B622/ B619	B575	B366
Alloy C22	N06022	2.4602	Rest	2.5	20- 22.5	12.5- 14.5	2.5- 3.5	2-6	0.08	0.5	0.01	-	-	-	0.2	0.2	8.69	B574	B564	B564	B622 B619	B622/ B619	B575	B366
Alloy B-2	N10665	2.4617	Rest	1.0	1.0	26.30	-	2.0	0.10	1.0	0.02	-	-	-	0.03	0.04	9.22	B335	B564	B564	B622/ B619	B622/ B619	B575	B366
Alloy 20	N08020	2.4660	32-38	-	19-21	2-3	-	Rest	1.0	2.0	0.07	3-4	-	-	0.035	0.045	8.10	B473	B462	B462	B729/ 3468	B729/ B464	B463	B366

*1Nb/Ta 3.15-4.15 *2V 0.35max

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	C71500	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	-	-	-	-	-	-



STAINLESS STEEL PIPE DIMENSION AS PER ASTM & WEIGHT-KG. PER MTR. (ANSI B36.19)

Nominal Bore		Outside Diameter	Sch-5S		Sch-10S		Sch-40S		Sch-80S		Sch-160S		Sch-XXS	
mm	INCH	mm	WL mm	Veight (kg/Mt)	Wt mm	Weight (kg/Mt)	Wt mm	Weigh (kg/Mt)	W mm	W mm	Wt mm	Weight (kg/Mt)	Wt mm	Weigh (kg/Mt)
3	1/8	10.3	1.24	0.276	1.24	0.28	1.73	0.37	2.41	0.47	-	-	-	-
6	1/4	13.7	1.24	0.390	1.65	0.49	2.24	0.631	2.41	0.80	-	-	-	-
10	3/8	17.1	1.24	0.490	1.65	0.63	2.31	0.845	3.20	1.10	-	-	-	-
15	1/2	21.3	1.65	0.800	2.11	1.00	2.77	1.27	3.75	1.62	4.75	1.94	7.47	2.55
20	3/4	26.7	1.65	1.03	2.11	1.28	2.87	1.68	3.91	2.20	5.54	2.89	7.82	3.63
25	1	33.4	1.65	1.30	2.77	2.09	3.38	2.50	4.55	3.24	6.35	4.24	9.09	5.45
32	1 1/4	42.2	1.65	1.65	2.77	2.70	3.56	3.38	4.85	4.47	6.35	5.61	9.70	7.77
40	1 1/2	48.3	1.65	1.91	2.77	3.11	3.68	4.05	5.08	7.48	7.14	7.25	10.16	9.54
50	2	60.3	2 11	2.40	2.77	3.93	3.91	5.44	5.54	7.48	8.74	11.1	11.07	13.44
65	2 1/2	73.0	2.11	3.69	3.05	5.26	5.16	8.63	7.01	11.4	9.53	14.9	14.2	20.39
80	3	88.9	2.11	4.51	3.05	6.45	5.49	11.30	7.62	15.2	11.1	21.3	15.24	27.65
100	4	114.3	2.77	5.84	3.05	8.36	6.02	16.07	8.56	22.3	13.49	33.54	17.12	41.03
125	5	141.3	2.77	9.47	3.40	11.57	6.55	21.8	9.53	31.97	15.88	49.11	19.05	57.43
150	6	168.3	2 77	11.32	3.40	13.84	7.11	28.3	10.97	42.7	18.2	67.56	21.95	57.43
200	8	219.1	3.40	14.79	3.76	19.96	8.18	42.6	12.7	64.6	23.0	111.2	22.23	107.8
250	10	273.1	3.40	22.63	4.19	27.78	9.27	60.5	12.7	96.0	28.6	172.4	25.40	155.15
300	12	323.9	3.96	31.25	4.57	36.00	9.52	73.88	12.7	132.0	33.32	238.76	25.40	186.97
350	14	355.6	3.96	34.36	4.78	41.3	11.13	94.59	19.05	158.08	35.71	281.70	-	-
400	16	406.4	419	41.56	4.78	47.29	12.7	123.30	21.4	203.33	40.46	365.11	-	-
450	18	457.2	4.19	46.80	4.78	53.42	14.27	155.80	23.8	254.36	45.71	466.40	-	-
500	20	508.0	4.78	59.25	5.54	68.71	15.09	183.42	26.19	442.08	49.99	564.68	-	-
600	24	609.6	5.54	82.47	6.35	94.45	17.48	255.41	30.96	442.08	59.54	808.22	-	-

PIPING . TUBING . FITTINGS FLANGES . RELATED PRODUCTS	
Type	Seamless & Welded
Commodity	Chrome . Stainless . Carbon . Low Temperature
Specifications	A/SA335· A/SA312· A/SA213 · A/SA106 ·A/SA53/API5L A/SA333
Sizes (O.D.)	1/8" (3.175mm) – 60" (1524mm) (Larger ODs Available)
Grades	Chrome: P1 – P5 – P9 – P11 – P22 – P91 Stainless: 304 . 304H . 304L . 316 . 316H . 316L . 316LN . 321 . 321H . 347 . 347H . 310 . 310s . 309 . Alloy 20 Low Temp: Grade 1/6 . Grade 3 Carbon: Grade B . Grade C . Galvanized

SPECIALTY ALLOYS	
Type	Seamless & Welded
Commodity	Nickel . Duplex & Titanium
Specifications & Grades	Alloy 800 . Alloy 825 . Alloy 600 . Alloy 625 . Alloy 400 6% Moly Grades . Duplex A790 UNS 31803 – 316LN
Sizes (O.D.)	1/8" (3.175mm) – 8" (203.2mm)
Wall Dimensions	0.035" (.889mm) – 0.875" (22.23mm)

MILITARY SPEC PIPE & TUBING	
Program	MIL-I-45208A Quality Program . Approved Level I Supplier
Contact Tioga for	U.S. Navy Specifications . Navy Nuclear . MIC Level I – Ultrasonic Testing
Fittings & Flange	All Fittings & Flanges to Match the Pipe
NUCLEAR MATERIALS	
Program	ASME Section III – ASME QSC 467
Contact Tioga for	10CFR50 Appendix B – N45.2. NQA-1-U.S. Navy Nuclear Specifications
Fittings & Flange	Pipe.Tubing.Fittings . Flanges . Structural.Fasteners . Forgings . Castings . Weld Rod . Plate
Fittings & Flange	Carbon . Stainless . Chrome Moly . Nickel Alloys . Duplex . 6 Moly Alloys . Low Temperature . Special Melts . Copper & Titanium

VIRAMI STEEL HUB SPECIALTIES	
• Project Management	• Dedicated Project Solution Teams
• 24/7 Emergency Service • Just-In-Time Programs • Inventory in Stock • All Schedule Walls • Special Heavy Walls to 4" (101.6mm) • Header Pipe to 4" Wall(101.6mm) • Special Intermediate Walls • Average & Minimum Walls • Saw Cut up to 40" (1016mm) • Cutting: Square & Miter • Custom Lengths and OD's • End Preps-Variou • Hard to Find Metals & Sizes • Easy Finder • Exceptional Mill/Sourcing Relations	• Vendor Managed Inventory Programs • Mobile On-Site Inventory Programs • Quick Response Programs • Low Total Cost Solutions • International Export & Packaging • EN PED 97/23/EC • ISO 9001-2008 • MIC Level I Supplier • In-House Testing • Destructive Examination • Non-Destructive Examination • In-House Hydrostatic Testing • Full EDI Capabilities • Customized e-business Solutions • Emergency Forged and Buttweld Fittings

APPLICATION INDUSTRIES

» ENGINEERING

» CEMENT

» STEEL INDUSTRY

» PULP & PAPER

» OIL & GAS

» DEFENSE

» PETROCHEMICAL

» FERTILIZER



Office - 2nd Floor, 205, Chandan Signature Bldg, 2nd Carpenter Street, Nanu Bhai Desai Road, Mumbai, Maharashtra, 400004



Godown - Virami steel hub 23, lohar vitthal anand baug bldg Shop no-1 opp bank of baroda 2nd panjrapole lane Mumbai-400004



Bhiwandi warehouse - Virami steel hub Godown no-F-1-2-3-4 Madhusdhan compound mankholi anjur village Opp English high schools Bhiwandi-421302

Contact Us



info@viramisteel.com | info@viramisteel.com



+91 9819002897 | +91 9819022297

