



Stainless Steel Tube Fittings

Prepared for :

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Statement of Confidentiality:

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Introduction

Duplex Supply Inc. are the Ace suppliers of Stainless Steel tube fittings over the past de-capod. We are one of the prime and arch brands in steel industry. Duplex Supply Inc. specializes in deviated forms of duplex, super alloys, stainless in form of tube, pipe4, plate, flanges, sheets, valves etc. Duplex Supply Inc. are the most accomplished and dynamite makers of nickel based alloys. We go with the saying “Customer is king” thus we make our Clients buying feel worthy and remarkable. We present customers in various countries for all size demand. The main Ambition of the firm is to provide commodities of matchless Quality because we strongly believe in Consumer Satisfaction. Stainless Steel tube fittings are one of our fastest selling product. In Today’s Market industries have become very low quality suppliers which creates Shallow in what Steel Industry needs. Due to such Junc-tures it results in decline of Quality Goods. But today our firm is one of the finest Organi-zation in Industry, Which makes us Solitary in such a Competitive Industry. Our Product Reliability and performance has made us one of the best brands. Because of such service our clients recommend us to other prospectors which is more than enough to prove our distinction in steel industry. Stainless steel tube fittings are the best quality product that we supply to our customers. We are known to the true essence of industry which makes us sound reliable and efficient for calibrating precise needs and demands of our custom-ers. We are a perfect fit for giving a tremendous scope of materials, from our stock, to suit your necessities from various Industries. From exceedingly specific non-standard material to off the rack products, from low essentials to factory runs, Duplex Supply Inc. has the experience to understand your most troublesome requirements. We have always kept our Vision clear which serves best in accomplishing our mission. We rectify the changes re-quired in industry with changing time and keep getting Major Control over the quality of our product. With the changing period of time we have always progressed day by day and our product quality has always remain finest. Our product have such impact on our cus-tomers that it fetches us new customers as well but the clients who once purchased from us always get back to us for their purchases.



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Product

Stainless steel Tube fitting is a product that is used to accommodate a leak free acquaintance between tubes for a seamless flow of liquids and gases. The most ordinary types of tube fittings manufactured by us are various types of Stainless steel, Monel, Stainless Steel, Hastelloy fittings which are used for their corrosion resistance and provide inventive finishes. The tube is designed to withstand. Stainless steel Tube Fittings are also designed to have a high vacuum which is the maximum vacuum pressure that can be created in the tube. Tubes can be conjoined to Stainless steel tube fittings by bulging the ferrule to the nuts and tubes. Stainless Steel Tube fittings are used in tube systems to conjoin straight pipe or tubing sections. The main use of fitting is to make the pipe or the tube adaptable to different sizes or shapes. Stainless steel Tube Fittings are also used for calibrating the liquid flow. The term plumbing is generally used to describe conveyance of water, gas, or liquid waste in ordinary domestic or commercial environments, whereas piping is often used to describe jazzed up conveyance of fluids in functional applications. The term tubing is sometimes used for lighter-weight piping, especially kinds that are flexible enough to be supplied in coiled form. The principal companies in which there is application of stainless steel tube fittings are Automotive, Shipbuilding/Marine, Railway, and Aerospace. These Stainless Steel tube fittings are majorly used in industries for their scrupulous and rigorous work. These are most commonly used in the oil and gas, pulp & paper, petro-chemical/chemical processing, research laboratories, aerospace and defense, chemical processing, power generation, cryogenic and semiconductor, shipbuilding and heavy industrial industries. It is worth asserting that all steel types exposed to water and oxygen will corrode. International standard stated that if less than 0.1 mm of the surface of a Stainless steel tube fittings are not corroded in a year, then it is sturdy and can be accepted as chosen quality for the application. It is important to know which fitting should be used in which application. There are kinds of variations in application of use of tube fittings.

Applications of Stainless steel tube fittings that we accommodate at Duplex Supply Inc. are:

1. Hydraulic Application- Hydraulic Applications Comprises alteration of liquid fluids such as water and other chemical solvents. They have seals which prevents leakage of liquid and frequently be rust resistant and other chemical corrosion.
2. Pneumatics-They Involve alteration of gases. They have tight seals which prevents gas leakages and are resistant to chemical corrosion.
3. Instrumentations- They are Strongly Physically Instrumented and do not require much sealing.
4. Calibration- This comprises of sequence-fully altered which is also not leak proof or spill proof sealed.
5. Oil & gas- Oil & Gas Application comprises of highly rust resistant and chemical corrosion seals which prevents leakages of oil & Gas.



Design

Types of Stainless Steel Tube Fittings consists subtypes

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|---|--|
| <ol style="list-style-type: none"> 1. TUBE TO UNION CONNECTION <ul style="list-style-type: none"> • UNION • UNION TEE • UNION ELBOW • UNION CROSS • BULK HEAD UNION • REDUCING UNION | <ol style="list-style-type: none"> 2. TUBE TO MALE CONNECTION <ul style="list-style-type: none"> • MALE CONNECTOR • MALE ELBOW • MALE BULKHEAD CONNECTOR • MALE RUN TEE • MALE BRANCH TEE |
| <ol style="list-style-type: none"> 3. TUBE TO FEMALE CONNECTION <ul style="list-style-type: none"> • FEMALE CONNECTOR • FEMALE ELBOW • FEMALE BULKHEAD CONNECTOR • FEMALE RUN TEE • FEMALE BRANCH TEE | <ol style="list-style-type: none"> 4. ACCESSORIES <ul style="list-style-type: none"> • FRONT FERRULE • BACK FERRULE • NUT • BLANKING PLUG • BLANKING END |
| <ol style="list-style-type: none"> 5. INSTRUMENTATION FITTINGS <ul style="list-style-type: none"> • MALE TEE • FEMALE TEE • STREET TEE • BRANCH TEE • FEMALE CROSS • MALE ELBOW • FEMALE ELBOW • STREET ELBOW • ADAPTER • BUSHING • HEX COUPLING • REDUCING HEX COUPLING • HEX NIPPLE • HEX PLUG • FEMALE CAP • ALLEN KEY | |



Materials

Stainless steel is an alloy of Iron with a minimum of 10.5% Chromium. Chromium produces a thin layer of oxide on the surface of the steel known as the 'passive layer' which prevents steel from corrosion as much as the increased amount of chromium it gives an increased resistance to corrosion thus the steel used by our company is the steel which contains more amount of chromium in it which keeps our products lifelong which enhances the consumer satisfaction with our product. Materials that we use are highly Qualitative which acts like a feather on a cap for our brand. Stainless steel also contains varying amounts of Carbon, Silicon and Manganese. Other elements such as Nickel and Molybdenum are added to impart other useful properties such as enhanced formability and increased corrosion resistance. Stainless steel is considered a versatile material. It was initially used in cutlery and soon it was used in almost all chemical industries because of its corrosion resistant characteristics. Today corrosion resistance is a requirement in almost all industries and slowly but steadily the mechanical characteristics of stainless steel are being recognized. There are 4 types of stainless steel 1.Ferritic Stainless steel, 2.Martensitic stainless steel 3.Duplex Stainless Steel and lastly 4. Austenitic stainless steel these divisions are made depending on their microstructure at room temperature.

1. Ferritic stainless steel consists of Low carbon and nickel, they are good corrosion resistant, they have good weld-ability and toughness and also are magnetic
- 2 .Martensitic Stainless steel have high strength, are limited corrosion resistant and are magnetic.
3. Duplex Stainless steel is very lightweight, have high proportion of strength and toughness and have very good corrosion resistance.
4. Austenitic Stainless steel have good creep resistance, good to excellent corrosion resistance and also have good weld-ability and formability.

We use the best out of these to keep our products life long run. As a Stainless steel tube fittings manufacturer we are backed by all the premium certifications including ISO 9001:2008, ISO 14001:2004, OHSAS 18001:2007, CE-PED 97/23/EC certifications. Our manufacturing is at par with the ASIM, ASME, ANS & DIN standards. We not only rely on in-house analyzing of products but we also have 3rd party knotted with us for analyzing our products quality. As a result of this we are proud to affirm a 0% rejection rate of all Stainless steel tube fittings distributed in over a decade. Our customers are fond of working with us competitive pricing on our stainless steel product makes us one of the dynamic distributors in industry. We also serve to clients on what they oblige as a customization work done by us. We are obligated to instant delivery of Stainless steel tube fittings and also have same day shipping of all goods, this is made possible because we have bulkiest stock in the country of finished as well as unfinished Stainless steel tube fittings. All Stainless Steel Tube fittings are made in accordance with ASTM standards. Our products are tested under the highest of pressures to nail down very high pressure sustainability of our product. Duplex Supply Inc. ensures that the materials we use are of A-1 Quality which makes our customer feel delighted to use our products.



Quality

Duplex Supply Inc. strongly has characteristic Quality control over all our products and our esoteric work quality and product quality makes us one of the top manufacturers in Industry. We provide Best Quality Stainless Steel Tube Fittings. Quality is our peak concern. We sustain high Quality Standards through our Committed Personnel and Sound Infrastructure. Not even a single fitting is left without a 3 layer inspection of chemical test, mechanical test, visual inspection, dimension inspection, pressure test, gauge test and conformity to the order. Quality Assurance System is beacons by Axioms that support our work culture which hooks in respect, self-administration, imaginative-ness and self-articulation. Duplex Supply Inc. is backed by all the possible certifications of a world class mill including ISO 9001:2008, ISO 14001:2007, OHSAS 18001: 2004 & CE-PED 97/23/EC. We are also members of various renowned agencies and Chambers of Commerce including MASSMA, EEPC, FICCI, FIEO, Indian Merchants Chamber etc.

We are Highly Concerned about our customer's expectations.



We Strain To always act with probity and Honesty.

We Aim To be Paramount in our Industry.



We do our absolute best to esteem our commitments.

We are delighted to be saturated with loads of order 50 days schedule ahead of time. Every single piece of our product is attached with test certificates and authentication certificate of our Quality Product. Day by Day we keep moving to improve Quality of our products for our client. We also welcome any third party inspection from an agency nominated by the customer to comply with NACE 3.2 Certification if required by customer at an extra costs satisfaction. Our Quality Management systems and work plans ensures pursuance of total Quality Management .We never compromise in terms of Quality of Stainless Steel Tube Fittings and also for our other products. We follow stringent Quality Norms and ethics by monitoring each production process which leads in supreme product quality. With years of experience in manufacturing we offer High Quality, Lower cost and Best service. Quality Assurance begins with understanding Customer's needs and is continued till the customer is completely convinced with the delivery of products and services. Stainless Steel Tube Fittings is one of the rough and tough product due to its great quality. We efficiently fulfil customer's needs in terms of Cost, Quality and Delivery.



Why Clients Choose us ?

Our clients have their trust in us and our Products because Duplex Supply Inc. is the most popular vendor of Stainless Steel Tube Fittings. We uniformly export our products to all the 5 continents in the world. Stainless Steel Tube Fittings are supplied majorly in Middle Eastern countries. Our all products are of marvelous quality. We have always followed saying of "Customer is king" for us and their satisfaction is what we aim for. Product replacement warranty is given. Our products can sustain high pressure. As of 2015, we stocked 500 tons of Stainless Steel Tube Fittings, highest in the country. With Duplex Supply Inc. you get un-comparable buying experience of products made from best raw materials. We execute both small and bulk orders. Every 4 months a 3rd party inspection is conducted.

Customer is king

Duplex supply Inc. furnishes MTC with EN10204 NACE 3.1, NACE 3.2 specifications. All clients are provided with a copy of the same. Duplex Supply Inc. have the distributor in more than 15 countries. With ISO 9001:2008, ISO 14001:2004, OHSAS 18001:2007 certificate We are majestic manufacturer and exporter of Stainless Steel Tube Fittings. Duplex Supply Inc. has emerged to become the most trusted company in several European, African and gulf based companies.

No compromises are made even when it comes to the packing of our products for sea as well as air transport. Also, the raw material taken for manufacturing is of the highest grade. Our specialized logistic team focuses on delivering the first model, which provides for instant dispatch against the receipt of bank transfer copy. At competitive pricing, Duplex Supply Inc. has become the ultimate destination of Stainless Steel Tube Fittings buyers Duplex Supply Inc. is looking forward to providing you with your specialty metal needs. Also the Customization we do on personal demand of customers gets us client satisfaction and our high quality products with flexible pricing makes us admired by our clients our clients feel delighted in buying our products and consumer satisfaction in itself is the biggest achievement for our firm.



Technical Details

Chemical Composition of Stainless Steel 304, %

	C	Mn	Si	P	S	Cr	Mo	Ni	N	Fe	Other
Min	-	-	-	-	-	18	-	8	-	-	-
Max	0.08	2	0.75	0.045	0.03	20	NA	12	0.1	Bal.	NA

Chemical Composition of Stainless Steel 316, %

	C	Mn	Si	P	S	Cr	Mo	Ni	N	Fe	Other
Min	-	-	-	-	-	18	2	8	-	-	-
Max	0.08	2	0.75	0.045	0.03	20	3	12	0.1	Bal.	NA

Mechanical Properties of Stainless Steel 304

UTS Min (MPA)	515
Yield Min (MPA)	205
Elongation MIn (%)	35
Hardness Max (HRB)	90
Heat Treatment	1000 - 1100°C

Mechanical Properties of Stainless Steel 316

UTS Min (MPA)	515
Yield Min (MPA)	205
Elongation MIn (%)	35
Hardness Max (HRB)	90
Heat Treatment	1000 - 1100°C



Production

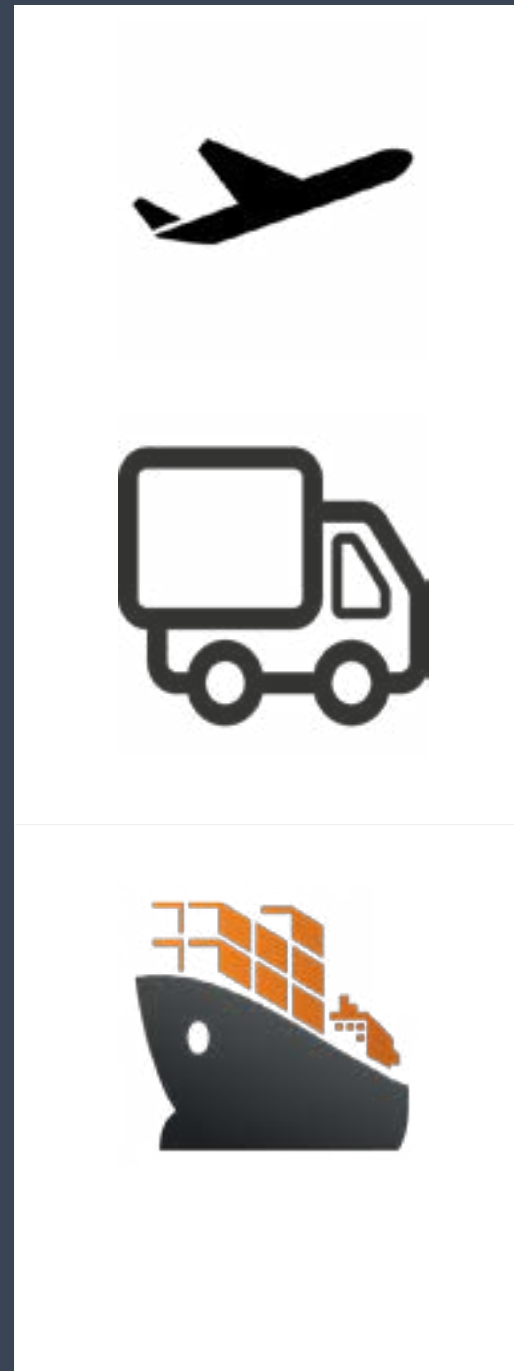
Each year, millions and tons of Stainless steel tube fittings are produced. Its versatility makes it the most often used product. Stainless steel tube fittings are found in a variety of places. Since they are very substantial in industrial work everywhere. The Production Process of Stainless steel tube fittings are divided into 3 parts which are BODY, NUTS AND FERRULE.

- i. **Body:** As per design standard the body is made from hex or round bar which is subject to heat treatment depending on the stature of the bar. Followed by that, the body is machined depending on the thread required by customer.
- ii. **Nuts:** Nuts are made in a fairly simple process by a machining of hex bar as per size and thread from a standardized design.
- iii. **Ferrule:** Ferrules are heart of Stainless steel tube fittings. Our specialization lies in the manufacture of an innovative method that makes the ferrules compatible with other manufacturer designs and increases the life of the fitting.

Our production range also comprises of instrumentation valves, condensate pots, snubber, manifolds, and custom designed valves. Fittings can be made in NPT, BSPT & BSPP Threads. Our production amplitude at apex in a 3 shift schedule is 1.3 million pieces of amassed units per month. Over and above to that we have in house testing facilities like spectra machine, PMI Machine, Mechanical test, Hardness Test, Ultrasonic Testing, Hydrostatic Testing, Pressure testing, and manual inspection of gauge. We take appropriate consternation that there are no errors and bungles caused in our production process because efficient production process is foremost for enrooting goods. Our state of the art factory has 21 CNC Machines, 12 Lathe Machines, 3 Heavy Punch Machines, and 5 Dye Machines for an end to end process at one place. Our Production process has very creamy operating system which maintains proper co-ordination of work.



Packaging & Documentation



Duplex Supply Inc. provide the certificate of origin legalized/attested by the chamber. Also, a commercial invoice including HS code is provided. Our product packing lists which come with the product includes a number of boxes, net weight, and gross weight. We provide test certificate certifying NACE MRO103, NACE MR0175 during the delivery of Stainless steel Tube Fittings to our customers, Along with this, a raw material test report is provided as well. Our laboratory reports that are NABL approved also is provided to our loyal customers. Other reports like raw material reports, heat treatment charts and letter of guarantee is also provided by Duplex Supply Inc. We provide a free sample kit for all clients against purchase order copy for quality approval free of cost. Request your free sample kit now and get your personalized orders at tip of your We offer price basis depending on your requirements. It can be based on previous works, FOB Nhava sheva, CFR, CIF, CPT your destination port or your door to door delivery duty which can be paid or unpaid finger by ordering it online.





About Duplex Supply Inc.

Duplex Supply Inc. is a privately held stockiest supplier and manufacturer of various alloy and metal products, the head office is located in Mumbai. DSI is committed to provide merit quality serviceability to all its customers with the minimal lead time.

Duplex supply Inc. provides shipping for all over global Customers. DSI has made noteworthy impact in metal Industry. With Duplex Supply Inc. you get un-comparable buying experience of products made from best raw materials. Duplex Supply Inc. has emerged to become the most trusted company in Indian market and in several European, African and gulf based companies. Duplex Supply Inc. is backed by all the possible certifications of a world class mill including ISO 9001:2008, ISO 14001:2007, OHSAS 18001: 2004 & CE-PED 97/23/EC.

“Your wish we Accomplish, You Demand we Deliver”



OUR MISSION

Our Aim is At Business Excellence through Higher business ethics and standards, Optimum use of resources, Spirit of Entrepreneurship.



OUR PRECISION

We are very Accurate from our Production System to our Delivery System we handle all our goods very precisely. We precisely fulfill all our promises to the clients and make sure that they have no complaints regarding our products.



OUR VISION

To provide best Quality products and service to our Clients and fulfilling their demands beyond their expectations and to be globally esteemed organization.



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We Look Forward to Hearing From You...

After knowing about all the information above mentioned regarding our products we look forward a hearing from you regarding any Queries and Orders we are delighted to serve all our customers the existing ones and also we welcome our new customer orders. We assure that our products will never disenchant you.



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