



Tube Fittings

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Statement of Confidentiality:

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Introduction

Duplex Supply Inc. has revolutionized and mastered the art of manufacturing the highest quality Tube Fittings and plates supplies in addition to our various other materials and products for nearly two decades. We at Duplex Supply Inc., master the process of manufacturing premier Tube Fittings with instant delivering speeds and high quality packaging at unbelievable cost pricing. Duplex Supply Inc. know the potential requirements and quality needs for your purpose for Tube Fittings built by us. Known as a Tube Fittings manufacturing powerhouse, Duplex Supply Inc. works for the utmost precision Tube Fittings with our generating of the materials respectively. We are keen on providing you with the best of the lot of the many manufacturers in the market today. The vast array of Tube Fittings products and a backing of elite and satisfied customers and industries, Duplex Supply Inc. takes pride in delivering Tube Fittings along with the various other products in the same branch of material respectively. High quality emphasis has been made sure to provide these products for longevity and utmost resistance to push and pull. Making waves in the Compression Fittings market at impeccable strides by laden details given to the products to assure just the right fit and fix for your specific needs. The products have been custom looked after and quality tested by ISO 9001:2008, ISO 14001:2004, ISO 9001:2008, ISO 14001:2004, OHSAS 18001:2007 certifications respectively.



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Product

Tube Fittings connect runs of tubing (for in-line, offset, multi-port, and mounting configurations) to different tubing sections, pipe, hose, or other components. Systems are usually configured with straight sections connected by fittings or specially formed connections and joints. Tubes are commonly associated with structural applications where the defining sizing specification is outside diameter (OD). Pipes are more often specifically vessels for fluid transport, where the defining specification for sizing is inside diameter (ID). Tubes and their fittings are defined with specific rather than nominal dimensions. In other words, a tube's outer diameter will often measure exactly 1.5 inches if rated with a 1.5" OD. This is not the case with pipes, where the actual dimensions are usually not the nominal (specified) dimensions.



Types

- Tube Fittings are distinguished based on their connection types and the functions they perform.
- Connection: Fittings are attached to tubes via a number of different connection methods, each with its own conveniences and advantages.
- Compression fittings are fittings which connect tubes using compression on a gasket, ring, or ferrule. The compression is typically made by tightening a nut onto the fitting over the tubing and ferrule, compressing and securing the tubing inside. Standard compression fittings do not require tools to assemble, making them convenient for quick, simple installation. However, they cannot withstand very high pressures and do not have as much flexibility as soldered fittings, making them less functional in systems with vibration, thermal cycling, and other dynamic forces. They also come in a limited number of materials (most commonly brass) and are best suited for metal on metal connections.
- Bite-type fittings are compressive fittings with a sharpened ferrule that "bites" the tube when compressed and provides the seal. Bite-type fittings, like standard compressive fittings, require no special tools to assemble but provide a stronger, higher pressure connection.
- Mechanical grip fittings are two-ferrule assemblies. The back ferrule holds the tubing while pressing up against the front ferrule, which spring-loads the front ferrule and creates a seal between the tubing and fitting body. These fittings can be reassembled multiple times without damaging components or tubing. They have good resistance to mechanical vibration.
- Flare fittings usually consist of a body with a flared or coned end. Special flaring tools are used to install the tube to fit inside the flared end, providing a deep seal. Flare fittings can handle higher pressures and a wider range of operating parameters than standard compression fittings.
- End fittings provide specific surfaces for connecting tubes. Clamp ends are fittings which allow tubes to be clamped to the connection and plain ends are fittings which allow tubes to be connected by adhesive, solder, or other forms.
- Flange fittings are ports with flush surfaces perpendicular to the attached tube. These surfaces are connected and sealed via clamps, bolts, and/or welding.
- Luer locks are sleeve fittings that afford simple, effective connections (generally for short, single use) by a quick twisting action. It is most commonly used in medical and laboratory applications.
- Push-to-connect fittings have ends that are designed to accept the tubing by pushing it in the end. These fittings usually disconnect via some type of collar retraction. Quick connections are convenient for sections of the system requiring frequent disconnection and reconnection.
- Tube Fittings consist of screw threads (built-in grooves) on their inner (female) or outer (male) surfaces designed to accept tubing with matching threads. Threads which provide a simple connection but no seal are called straight threads. Tapered threads are designed to provide a tight seal for gases or fluids under pressure. Seal reliability can be improved by adding a coating or seal tape (Teflon). Especially precise threads are called "dry fit", meaning they seal without the need for an additional sealant, which is important in applications where sealant addition could cause contamination or corrosion.



Materials

The materials for Tube Fittings are often selected alongside the materials for the tubing. Selection depends on factors such as cost, flexibility, media, environmental conditions, and required pressure ratings. Material choices include different types of plastic or metal.

Common metals include:

1: Aluminium - lightweight and corrosion resistant. Aluminium is commonly used for plumbing and is the preferred fitting material for aluminium tubing. By itself, aluminium has low tensile strength and is used when high corrosion resistance is needed. It is alloyed with zinc, copper, silicon, manganese, and/or other metals to improve its strength and hardness.

2: Brass - strong, durable, and corrosion resistant, with high temperature ductility and good conductivity. Brass is an alloy of copper and zinc, and is the most common tube fitting metal used in industry because of its machinability and its excellent performance properties. Brass fittings can have various protective or decorative finishes which should match the finish of the tubing.

3: Cast iron - strong and highly abrasion resistant. Cast iron fittings and tubes are used primarily in building construction for sanitary, storm drain, waste, and vent tubing applications because of their resistance to abrasive materials like sand, gravel, solid wastes, and debris.

4: Copper- extremely corrosion resistant with excellent conductivity. Copper fittings are important for many plumbing and heating applications, and are commonly used for residential water supply lines. Copper fittings are usually used in conjunction with copper tubing, and come in either soft or rigid forms. Soft or ductile copper is easily bent and maneuvered, and is the only type suitable for flare connections. Rigid copper is not bendable and requires directional fittings to go around corners and obstacles.

5: Steel - durable and strong, with a high resistance to heat. Steel is an alloy of iron and carbon - it is commonly alloyed with other metals to improve its corrosion resistance and durability. It is used in both commercial and industrial applications for carrying water, flammable gases, and other fluids. Galvanized steel is coated with zinc for rust and chemical corrosion resistance. Carbon steel is alloyed with higher levels of carbon for increased durability and strength.

6: Tube Fittings- relatively strong with excellent chemical and corrosion resistance. Tube Fittings is an alloy of steel that contains over 10.5% chromium, providing excellent corrosion resistance for sanitary applications and those dealing with aggressive fluids and materials.



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 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, OH-SAS 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 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. 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 Tube Fittings. We uniformly export our products to all the 5 continents in the world. 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 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 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 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.



Applications & Features

- Fitting make and material specifications are application-dependent; consulting the fitting supplier is typically a wise way for optimizing component selection. However, most Tube Fittings correspond to either hydraulic or pneumatic systems. The simple system type is the first step to determining the type of fittings right for the application.
- Hydraulic applications involve the transfer of liquid fluids such as water and other chemical solvents. Hydraulic fittings must have seals which prevent the leakage of liquid and often be resistant to rust or other possible chemical corrosion.
- Pneumatic applications involve the transfer of gases. Pneumatic fittings must have very tight seals to prevent gas leakage and must be resistant to chemical corrosion.
- Other applications such as structural design also incorporate Tube Fittings. These fittings must have strong physical integrity but typically do not require sealing because they do not carry fluids.

Features of the Tube Fittings:

- Corrosion resistant Tube Fittings along with high tensile strength of 700 N/mm², abrasion resistance.
- Along with a spectacular dimensional accuracy of the Tube Fittings and having had matchless performance backed up by our experience, these Tube Fittings Fitting have also known to be consistently strong.
- There are no misaligned pipes. The Tube Fittings produced meet ASTM standards. No cutting of forms.
- Heavy Gage Steel. It is self-aligning.
- Quick Installation. It is way more durable.
- Self-Levelling.
- No Concrete Cracking.
- Accurate tube fitting for process control cum instrumentation.
- Tube Fittings has male NPT at both ends.
- Threading is done in a proper way so that it can ensure full proof leak free & reliable systems.
- A variety of connections & configurations are available. Plastic caps are used to protect male threads. They have supreme tensile strength and brilliant performance & serve with best grade materials.

TUBE FITTINGS Specification:

- Material under ASTM A-479 & ASTM A-182.
- Tubing material is 316SS annealed seamless tubing ASTM A-213 or equivalent.
- Fittings have high vacuum capabilities & working pressures (PSI).
- Reliable and safe performance from cryogenic temperatures to 380 degrees C.



Production Process

We produce large volume at crest in a 3 shift plan, which means, we used to target 1.3 million assembled units on per month basis. We have in house testing provision e.g. Hardness Test, PMI Machine, Ultrasonic Testing, Mechanical test, spectro machine, Hydrostatic Testing, manual inspection of gauge and Pressure testing. Our production varies from snubber, condensate pots, manifolds, instrumentation valves and custom designed valves. Tube Fittings Manufacturers can be fabricated in threads like NPT, BSPT & BSPP

Value Addition

We offer top notch experience in terms of buying and payment accessibility along with being known to have quickest delivery rapport. We also provide test report guided for quality checks having high pressure sustainability during transport and product replacement warranty. We have 3 heavy punch machines for shaping the bar. We also have thread machines to make NPT, BSPT & BSPP threads to the forging. Added to that we have in house testing facilities like spectro machine, PMI Machine, Mechanical test, Hardness Test, Ultrasonic Testing, Hydrostatic Testing, Pressure testing, and manual inspection of gauge. Duplex Supply Inc. perform the utmost required procedures for your guaranteed satisfaction with intense care and detailed efforts for your product. Highly responsive and logistically unique, Duplex Supply Inc. offer you the exact and fastest delivery created specifically by our value addition team.

Operation:

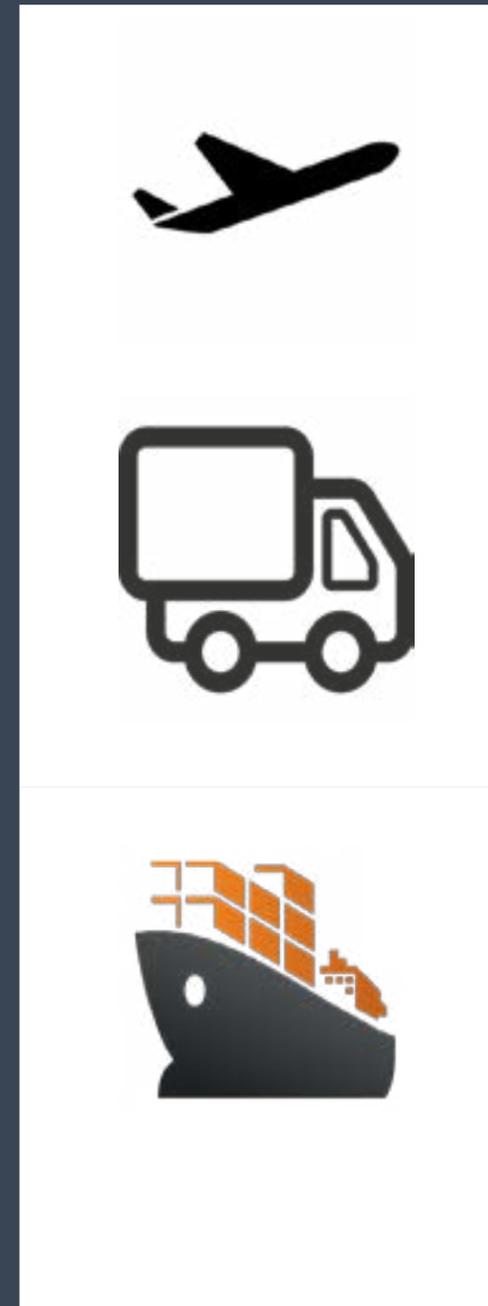
The operating specifications that are most important for fittings include pressure and temperature. Operating pressure range is the working range of pressures or the pressure ratings at which the fitting was designed to operate, typically measured in pounds per square inch (psi). Operating above or below this rating could cause the fitting to fail (i.e. break, leak, lose its seal). Operating temperature range is the working range of temperatures or the temperature ratings at which the fitting was designed to operate, measured in degrees Fahrenheit (°F) or degrees Celsius (°C). Operating above or below this rating could cause the fitting to fail.

Sizing:

Once the type of fitting required has been figured, the most basic aspect of Tube Fittings can be addressed: proper sizing. Proper sizing is very important to successful fitting selection, as oversized or undersized parts will either be completely incompatible or will seal or connect inadequately. Sizes for fittings are typically given in millimetres (mm) or inches (" or in) depending on the system of measurement. Proper sizing requires the user to select a fitting which is sized using a system of measurement (Metric or English) that is compatible with the equipment or assembly being fitted. The sizing of a fitting is defined by the inside diameter (ID) and outside diameter (OD) of its corresponding connections, measured in inches (in) or millimetres (mm). In other words, a fitting designed to connect to a tube with a 2" OD is rated as a 2" OD fitting. Inside diameter measures the diameter of the empty portion of the cylinder, while outside diameter includes the thickness of the tubing wall.



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 list which comes with the product includes a number of boxes, net weight, and gross weight. We provide test certificate certifying NACE MRO103, NACE MR0175 during delivery of Titanium Sheets to our clients, 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. Our Titanium Sheets are very well packaged and perfectly delivered. 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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