



# Stainless Steel 904L Pipes

Prepared for :

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**Statement of Confidentiality:**

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# Introduction

Duplex Supply Inc. are the suppliers of Stainless Steel 904L Pipes over the past decade. We are one of the nonpareil brands in alloy industry. We go with the saying “Customer is king” thus we make our Clients buying feel esteemed and exemplary. Stainless Steel 904L Pipes are one of our fastest selling products. Today, our industry is filled with high volume but low-quality suppliers which are below the line with what the industry requires. Because of such circumstances, it results in lapse of the quality of goods and hence, the entire project. We also look after it that our industrial Hazards are dumped appropriately and not polluting the environment also we have such procedures in factory by which the harm-full chemicals are directly ventilated which doesn't harms environment and houses located around our factory. We present customers in various countries for all size demand. We have always kept our Vision clear which serves best in achieving our mission. We amend the changes required in industry with changing time and keep getting superior Control over the quality of our product. The main aim of this organization is to provide commodities of determined quality, in addition to making our client's buying experience world-class and a memorable one. Today our firm is one of the admirable Organization in Industry, Which makes us secluded in such a Competitive Industry. Our Product Reliability and performance has made us one of the top brands. Because of such service our clients recommend us to other prospectors which is more than enough to prove our distinction in steel industry. Duplex Supply Inc. Works in consideration of Clients, Environment and best Quality we do no compromises in these matters.



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# Product

Stainless steel 904L pipes are long, hollow tubes that are used for a variety of purposes. They are produced by two distinct methods which result in either a welded or seamless pipe. In both methods, raw steel is first cast into a more workable starting form. It is then made into a pipe by stretching the steel out into a seamless tube or forcing the edges together and sealing them with a weld. Stainless steel 904L Pipes are building material made from an alloy of iron and carbon. It is widely used in the construction industry, but can also be found in a variety of manufacturing and industrial applications. In plumbing systems, pipe can be used to transport liquids and gases for commercial and residential buildings, as well as in municipal water supplies. This material also acts as a structural component for scaffolding and framing systems. The first methods for producing pipe were introduced in the early 1800s, and they have steadily evolved into the modern processes we use today. Each year, millions of tons of steel pipe are produced. Its versatility makes it the most often used product produced by metal industry. Stainless steel 904L pipes are found in a variety of places. Since they are strong, they are used underground for transporting water and gas throughout cities and towns. They are also employed in construction to protect electrical wires. While pipes are strong, they can also be lightweight. This makes them perfect for use in bicycle frame manufacture. Other places they find utility is in automobiles, refrigeration units, heating and plumbing systems, flagpoles, street lamps, and medicine to name a few.



# Design

There are two types of Stainless steel 904L pipes, one is seamless and another has a single welded seam along its length. Both have different uses. Seamless Stainless steel 904L Pipes are typically more light weight, and have thinner walls. They are used for bicycles and transporting liquids. Seamed pipes are heavier and more rigid. They have a better consistency and are typically straighter. They are used for things such as gas transportation, electrical conduit and plumbing. Typically, they are used in instances when the pipe is not put under a high degree of stress. Certain pipe characteristics can be controlled during production. For example, the diameter of the pipe is often modified depending how it will be used. The diameter can range from tiny Stainless steel 904L pipes used to make hypodermic needles, to large pipes used to transport gas throughout a city. The wall thickness of the pipe can also be controlled. Often the type of metal will also have an impact on pipe's strength and flexibility. Other controllable characteristics include length, coating material, and end finish.



# Materials

Principal Design Features	904L is an austenitic stainless steel designed for moderate to high corrosion resistance. Its low carbon content improves cleanliness and weld strength.
Applications	Utility scrubber assemblies, acid and fertilizer production equipment.
Machinability	Slow speeds and positive feeds will minimize this alloy's tendency to work harden and glaze. Use chip breakers where possible to overcome problems with long draggy chips.
Welding	Most common fusion and resistance methods may be employed. For maximum corrosion resistance, it is recommended to use filler metals of equal or higher alloy content.
Hot Working	Hot work should proceed after uniform heating to 2000-2200 F. Do not work the material at less than 1800 F. Full annealing should follow any hot work to retain maximum ductility and corrosion resistance.
Cold Working	Although higher forces are required, 904L will respond in a similar fashion to other austenitic stainless steels like 304, 316 or 317. Most common operations can be successfully performed.
Annealing	1920-1990 F (1050-1090 C), rapid cooling.
Hardening	This alloy does not respond to heat treatment. It may only be hardened by cold reduction.

Some of the major applications of grade 904L stainless steels include:

- Wiring in electrostatic precipitators
- Oil refinery components
- Seawater cooling devices
- Gas scrubbing plants
- Pulp and paper processing industries
- Acetic, phosphoric and sulphuric acid processing plants

This material is then further used to create a product i.e. Stainless Steel 904L pipes



# 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 904L Pipes. 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 904L Pipes 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 904L Pipes 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 904L Pipes. We uniformly export our products to all the 5 continents in the world. Stainless Steel 904L Pipes 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 904L Pipes, 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 904L Pipes. 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 904L Pipes 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, %											
	C	Mn	Si	P	S	Cr	Mo	Ni	N	Fe	Cu
Min	-	-	-	-	-	19	4	23	-	-	1
Max	0.02	2	1	0.045	0.035	23	5	28	0.15	Bal	2

Mechanical Properties	
UTS Min (MPA)	490
Yield Min (MPA)	220
Elongation MIn (%)	35
Hardness Max (HRB)	90
Heat Treatment	1090 - 1175°C



# Production

Stainless steel 904L pipes are made by two different processes. The overall production method for both processes involves three steps. First, raw steel is converted into a more workable form. Next, the pipe is formed on a continuous or semi-continuous production line. Finally, the pipe is cut and modified to meet the customer's needs.

## Pipe making of Stainless Steel 904L Pipes

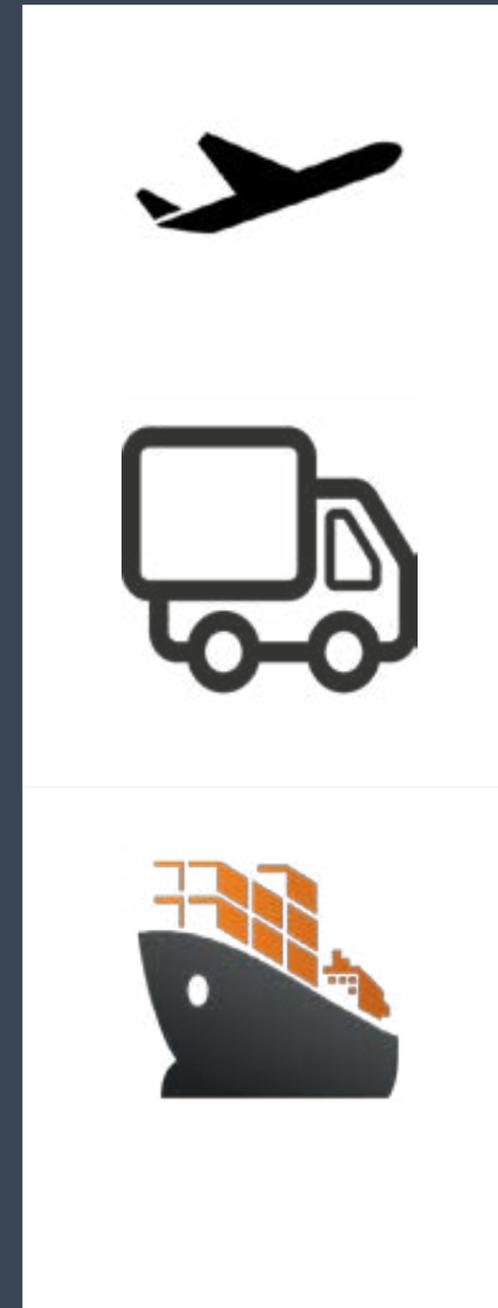
- Both skelp and billets are used to make Stainless Steel 904L Pipes. Skelp is made into welded pipe. It is first placed on an unwinding machine. As the spool of metal is unwound, it is heated. The metal is then passed through a series of grooved rollers. As it passes by, the rollers cause the edges of the skelp to curl together. This forms an un-welded pipe.
- Inconel next passes by welding electrodes. These devices seal the two ends of the Stainless Steel 904L Pipes together. The welded seam is then passed through a high pressure roller which helps create a tight weld. The pipe is then cut to a desired length and stacked for further processing. Welded steel pipe is a continuous process and depending on the size of the pipe, it can be made as fast as 1,100 ft (335.3 m) per minute.
- When seamless pipe is needed, square billets are used for production. They are heated and moulded to form a cylinder shape, also called a round. The round is then put in a furnace where it is heated white-hot. The heated round is then rolled with great pressure. This high pressure rolling causes the billet to stretch out and a hole to form in the centre. Since this hole is irregularly shaped, a bullet shaped piercer point is pushed through the middle of the billet as it is being rolled. After the piercing stage, the pipe may still be of irregular thickness and shape. To correct this it is passed through another series of rolling mills.

## Final processing of Stainless Steel 904L Pipes

After either type of pipe is made, they may be put through a straightening machine. They may also be fitted with joints so two or more pieces of pipe can be connected. The most common type of joint for Stainless Steel 904L Pipes with smaller diameters is threading—tight grooves that are cut into the end of the pipe. The pipes are also sent through a measuring machine. This information along with other quality control data is automatically stencilled on the pipe. The pipe is then sprayed with a light coating of protective oil. Most pipe is typically treated to prevent it from rusting. This is done by galvanizing it or giving it a coating of zinc. Depending on the use of the pipe, other paints or coatings may be used



# 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 904L Pipes 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. Other reports like raw material reports, heat treatment charts and letter of guarantee is also provided by Duplex Supply Inc. Our Stainless steel 904L Pipes are packaged in such a way that no damage is caused during the time of delivery. 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

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



## OUR PRECISION

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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

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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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