



ZHEHENG STEEL

Wenzhou Zheheng Steel Industry Co.,Ltd  
stainless-steelseamlesspipe.com



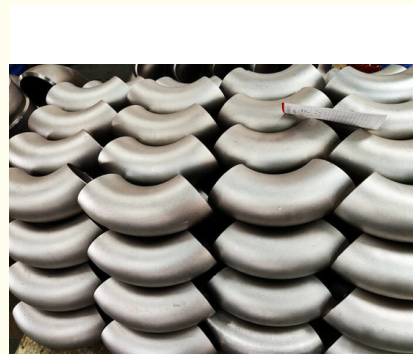
## ANSI B16.11 Duplex SS S31500 Forged Elbow With LR Butt Weld 2 Inch 90 Degree

Our Product Introduction

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### Basic Information

- Place of Origin: Wenzhou, China
- Brand Name: Zheheng
- Certification: ISO9001
- Model Number: 31500
- Minimum Order Quantity: MOQ500kg
- Packaging Details: In wooded cases or pallets, or as for clients requirement
- Delivery Time: 7-15 working days after receiving payment
- Payment Terms: L/C, D/P, T/T, Western Union
- Supply Ability: 1000 Ton/Tons per Month



### Product Specification

- Port: Ningbo
- Size: 1/8"NB To 4"NB (Socketweld & Screwed-Threaded)
- Type: Screwed-Threaded Fittings
- Package: Seaworthy Standard Package
- Price Terms: FOB, CIF, CFR, EXW
- Shape: Equal
- Connection: Female/Male
- Degree: 45° 90° 180°
- Highlight: **SS S31500 Forged Elbow, ANSI B16.11 Duplex Forged Elbow, Weld 90 Degree Pipe Elbow**



## Product Description

### Overview

S31500 material is a duplex (austenitic-ferritic) stainless steel with characters as High resistance to stress corrosion cracking (SCC) in chloride, bearing environments, Good resistance to general corrosion and pitting, High mechanical strength, roughly twice the proof strength of austenitic grades, Good resistance to erosion corrosion and corrosion fatigue, Physical properties that present design advantages, Good weldability.

### Characterized by the following properties:

High resistance to stress corrosion cracking (SCC) in chloride-bearing environments  
Good resistance to general corrosion and pitting  
High mechanical strength – roughly twice the proof strength of austenitic grades  
Good resistance to erosion corrosion and corrosion fatigue  
Physical properties that present design advantages  
Good weldability

### Application

Oil refineries  
Pulp and Paper industry  
Chemical industry  
Food industry  
Petrochemical plants  
ety panels

### Chemical Composition

C	Si	Mn	P	S	Cr	Ni	Mo	N
0.03	1.4-2.0	1.2-2.0	0.03	0.03	18.0-19.0	4.5-5.2	2.5-3.0	0.05-0.10

### Mechanical Properties

Tensile Strength,Mpa	Yield Strength, Mpa	Elongation %	Hardness,HB
630 min	440 min	30 min	290 max

### Corrosion Resistance

Duplex steel UNS S31500 has impressive properties, making it a sought-after material among multiple industries. It is known for its corrosion resistance and high strength, and toughness. This makes the alloy suitable for projects that require superior corrosion resistance, like sea water piping or marine use, chemical industry and food processing equipment. The combination of good strength, excellent corrosion resistance and high toughness, even at low temperatures, make duplex steel UNS S31500 an ideal choice for demanding applications since it provides more cost-effective solutions than other alloys.

### Heat Resistance

Duplex steel UNS S31500 is known for its superior heat resistance properties compared to conventional stainless steel alloys. Due to its two-phase microstructure, the alloy shows excellent oxidation and corrosion resistance – even in harsh environments. In addition, it has a higher chromium content which helps it withstand elevated temperatures without losing ductility or toughness. This makes Duplex steel UNS S31500 an ideal choice for applications such as wall panels and linings in chemical processing units, marine equipment and pressure vessels operating at extreme temperatures.

### Heat Treatment

This alloy is resistant to pitting and crevice corrosion and retains its strength when exposed to temperatures up to 600°C. To achieve these amazing performance levels, S31500 must be heat treated carefully to maintain the balance between its ferrite and austenitic structures. During heat treatment, the alloy may undergo several cycles of heating and cooling to reach the desired level of toughness and corrosion resistance. Once it has been heat treated, duplex steel UNS S31500 can be used for components that require long-term exposure to corrosive environments or extreme temperature fluctuations.

### Shipping

ASTM A403 WPS31254 Pipe Fittings is sleeved into plastic bag individually, pieces wrapped with water-proof material, bundled with nylon rope. Clear labels are tagged on the outside of the package for easy identification of the quantity and product I.D.

### Image



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