SS 825 825E Control Lines Pipe N08825 Heat Treated Oil And Gas Control Lines

Our Product Introduction

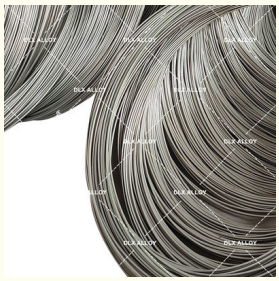
Basic Information

- Place of Origin: China
- Brand Name: DLX
- Certification: ISO SGS
- Minimum Order Quantity: 1Kg
- Delivery Time: 5-21 days

Product Specification

- Highlight: **Oil and Gas Control Lines Pipe**, **Heat Treated Control Lines Pipe**, **SS 825 Control Lines Pipe**

More Images



Product Description

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In oil and gas applications, control lines made from Alloy 825 are employed in downhole operations for hydraulic control, chemical injection, and signal transmission. They are often chosen for environments with high pressures, temperatures, and corrosive elements like hydrogen sulfide (H_2S) and carbon dioxide (CO_2). Alloy 825 provides a balance of strength, flexibility, and resistance to sour gas corrosion, making it an ideal choice for downhole tubing in offshore and onshore oil fields.

Alloy 825 (UNS N08825) is a nickel-iron-chromium alloy with additions of molybdenum, copper, and titanium. It is designed to provide excellent resistance to both reducing and oxidizing acids, stress-corrosion cracking, and localized attack such as pitting and crevice corrosion. Due to its superior corrosion resistance and strength, Alloy 825 is widely used in harsh environments, including oil and gas applications.

Corrosion Resistance Of Different Materials(G28 A Methord)

Grade	Rate(mm/a)
N08825	≤ 0.9
N08020	≤ 0.5
N08367	≤ 0.5
N06625	≤ 0.9
N10276	≤ 10
N06200	≤ 1.5
N06022	≤ 1.0
N06600	≤ 1.0
N06601	≤ 1.0

825 825E Chemical Composition

C	Si	Mn	P	S	Cr	Mo	Ti	Cu	Fe	Al	Ni
≤	≤	≤	≤	≤					≥		
0.05	0.5	1.0	0.02	0.03	19.5-23.5	2.5-3.5	0.6-1.2	1.5-3	22	0-0.2	38-46

Mechanical Propertie

Property	825 Mln.	825E Mln.	Max.
Tensile strength (psi)	85000	95000	-
Yield strength (psi)	35000	60000	-
Elongation (%)	30	18	-

Size Dependant Characteristics (Based Upon Nominal Tubing Dimensions)

Type	O.D.	W.T.	Maximum Theoretical Working Pressure	Minimum Theoretical Collapse Pressure	Nominal Theoretical Burst Pressure
	in.	in.	psi	psi	psi
Welded	1/4	0.035	7220	7583	21014
	1/4	0.049	10513	9979	29278
	1/4	0.065	14769	12365	38958
	1/4	0.083	20147	14502	49819
	3/8	0.035	4674	5323	14096
	3/8	0.049	6700	7153	19640
	3/8	0.065	9225	9107	26134
	3/8	0.083	12277	11056	33419
	1/2	0.035	3459	4097	10613
	1/2	0.049	4920	5559	14787
	1/2	0.065	6713	7164	19677
	1/2	0.083	8836	8827	25162
Seamless	1/4	0.035	7220	7583	21014
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	in.	in.	psi	psi	psi
Welded	1/4	0.035	11139	13000	23486
	1/4	0.049	16220	17107	32722
	1/4	0.065	22787	21198	43542
	1/4	0.083	31085	24861	55681
	3/8	0.035	7212	9125	15755
	3/8	0.049	10337	12262	21950
	3/8	0.065	14234	15611	29208
	3/8	0.083	18942	18953	37351
	1/2	0.035	5336	7024	11862
	1/2	0.049	7592	9530	16527
	1/2	0.065	10358	12282	21991
	1/2	0.083	13633	15133	28122
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Key Properties of Alloy 825:

Corrosion Resistance: Excellent resistance to a wide range of corrosive environments, especially sulfuric acid, phosphoric acid, and seawater. It also resists stress-corrosion cracking, making it suitable for environments with high levels of chloride.

High Strength and Durability: The alloy exhibits good mechanical properties at both room temperature and elevated temperatures up to about 538°C (1000°F).

Oxidation Resistance: Good resistance to oxidation and scaling at elevated temperatures.

Localized Corrosion Resistance: The molybdenum and copper in Alloy 825 provide resistance to reducing environments, while chromium enhances resistance to oxidizing conditions.

APPLICATION

Key Properties:

Oil and Gas Control Lines: Alloy 825 is used in control line tubing in oil and gas applications, particularly for downhole systems exposed to corrosive environments with high chloride concentrations, acids, or sour gas. These control lines deliver hydraulic control, transmit pressure signals, or inject chemicals.

Chemical Processing: Used in chemical processing industries where sulfuric acid, phosphoric acid, and other corrosive agents are present.

Nuclear Fuel Reprocessing: The alloy is resistant to nitric acid and other radioactive environments, making it suitable for nuclear fuel reprocessing.

Heat Exchangers and Piping: Ideal for heat exchangers, piping, and tanks exposed to seawater or industrial chemicals.

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