

Tubing, steel, corrosion and heat resistant, for aerospace vehicle hydraulic systems assembled by brazing 304L Mechanical properties, Physical properties, Mechanical properties, Heat treatment, 304L Supplier

Tubing, steel, corrosion and heat resistant, for aerospace vehicle hydraulic systems assembled by brazing 304L steel chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, We can produce round bars, forged rings, forged cakes, flat bars, tubes, sheets, plates, steel wires, steel strips, steel coils, etc. The size can be customized, the maximum order quantity is 100Kg. It also contains the use of 304L, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

Data Table for Materials Stainless Steels & Special Steels Tubing, steel, corrosion and heat resistant, for aerospace vehicle hydraulic systems assembled by brazing 304L

304L Standard Number					
ITEM	Standard Number	Descriptions			
1	MIL-DTL-23196E	Steel plate, corrosion resistant, austenitic (UNS S30400, S30403, S31600, S34700, and S34800)			
2	MIL-P-1144D	Pipe, corrosion-resistant, stainless steel, seamless or welded			
3	MIL-S-23196	Steel plate, corrosion resistant, austenitic (UNS S30400, S30403, S31600, S34700, and S34800)			
4	MIL-S-4043B	Steel; Corrosion-resisting (extra low carbon type 304), plate, sheet, and strip			
5	MIL-S-862B	Steel bar, corrosion resisting, and steel billet, corrosion resisting, reforging application			
6	MIL-T-8973	Tubing, steel, corrosion and heat resistant, for aerospace vehicle hydraulic systems assembled by brazing			

304L Chemical composition(mass fraction)(wt.%)						
Chemical	Min.(%)	Max.(%)				
С		0.030				
Si		1.00				
Mn		2.00				
Р		0.045				
S		0.03				
Cr	18.0	20.0				



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	Ni			8.0	00			10.0	
	N							0.10	
С	Si	Mn	Р	S	Cr	Ni	Мо	V	Ta
W	N	Cu	Со	Pb	В	Nb	Al	Ti	Other

304L Physical Properties						
Tensile strength	115-234	σb/MPa				
Yield Strength	23	σ 0.2 ≥/MPa				
Elongation	65	δ5≥ (%)				
Ψ	-	ψ≥ (%)				
Akv	-	Akv≥/J				
HBS	123-321	-				
HRC	30	-				

304L Mechanical Properties						
Tensile strength	231-231	σb/MPa				
Yield Strength	154	σ 0.2 ≥/MPa				
Elongation	56	δ5≥(%)				
Ψ	-	ψ≥(%)				
Akv	-	Akv≥/J				
HBS	235-268	-				
HRC	30	-				

304L Heat Treatment Regime						
Annealing Quenching Tempering Normalizing Q & T						
\checkmark	\checkmark	\checkmark	\checkmark	\checkmark		



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304L Range of products						
Product type	Products	Dimension	Processes	Deliver Status		
Plates / Sheets	Plates / Sheets	0.08-200mm(T)*W*L	Forging, hot rolling and cold rolling	Annealed, Solution and Aging, Q+T, ACID-WASHED, Shot Blasting		
Steel Bar	Round Bar, Flat Bar, Square Bar	Φ8-1200mm*L	Forging, hot rolling and cold rolling, Cast	Black, Rough Turning, Shot Blasting,		
Coil / Strip	Coil / Strip Steel Coil /Steel Strip		Cold-Rolled & Hot- Rolled	Annealed, Solution and Aging, Q+T, ACID-WASHED, Shot Blasting		
Pipes / Tubes	Seamless Pipes/Tubes, Welded Pipes/Tubes	OD:6-219mm x WT:0.5-20.0mm	Hot extrusion, Cold Drawn, Welded	Annealed, Solution and Aging, Q+T, ACID-WASHED		

We can produce Stainless Steels & Special Steels the specifications follows:

Note:

(1) listed in the table apex diameter (d), to steel thickness (a) multiples said.

(2) in the ASTM A6 standard specified scope can meet any additional conditions.

(3) from the standard for 50 mm (2 in).

Mechanical properties

Mechanische Eigenschaften

Caracteristiques mecaniques

ReH Minimum yield strength / Mindestwert der oberen Streckgrenze / Limite d'elasticite minimale

Rm Tensile strength / Zugfestigkeit / Resistance a la traction

A Minimum elongation / Mindestwert der Bruchdehnung / Allongement minimal

J Notch impact test / Kerbschlagbiegeversuch / Essai de flexion par choc

Round bar:

Diameter: 1mm-2000mm

Square bar:

Size: 50mm * 50mm-600mm *600mm

Plate steel/flat bar:

Size: Thickness: 0.1mm-800mm Width: 10mm to 1500mm

Tube/pipe:



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Size: OD: 6-219mm WT: 1-35 mm.

Cold-rolled sheet: Thickness: 2-5mm Width:1000mm Length: 2000mm

Hot-rolled sheet: Thickness:6-80mm Width: 210-610mm

Length: We can supply any length based on the customer's requirement.

Forging/hot rolling/ extrusion of steel.

Forging: Shafts with flanks/pipes/tubes/slugs/donuts/cubes/other shapes

 $Finished goods \ condition: \ hot forging/hot \ rolling \ + \ annealing/normalizing \ + \ tempering/quenching \ + \ tempering/quenching/quenching \ + \ tempering/quenchin$

tempering/any conditions based on the customer's requirement

Surface conditions: scaled (hot working finish)/ground/rough machining/fine machining/based on

the customer's requirement

Furnaces for metallurgical processing: electrode arc + LF/VD/VOD/ESR/Vacuum consumable electrode.

Ultrasonic inspection: 100% ultrasonic inspection for any inperfections or based on the customer's requirement.

UTS according to SEP 1921 C/c,D/d,E/e;A388 or GB/T 6402

Excellent service for all kinds of industries, with advantages of technologies, equipment and price.

We serve you with our honesty, integrity, and professionality.