

AVAILABILITY

Seamless Pipe 1/4"- 20"	Valves 1/2"-24"
Weld Pipe 1/2"- 24"	Weld Tubings 1/8" - 12"
Butt-Weld Fit. 1/2"- 24"	Seamless Tube 1/16" - 6"
Butt-Weld Fit. 1/2"- 12" *	Flanges 1/2"- 24"
Pressure Fittings 1/4"- 4"	Bar 1/8"- 12"
150# Fittings/Nipples 1/4"- 4"	Sanitary Tube 1/2" - 8"
Plate 1/8" - 3"	Sanitary Fittings 1/2" - 8"

SPECIFICATIONS

ASTM A312, A376, A358,
A269, A249, A403, A182,
A351
ASME SA312, SA376, SA358,
SA269, SA249, SA403,
SA182, SA351

CHEMICAL COMPOSITION %

C	Cr	Mn	Ni	P	S	Si
Max		Max		Max	Max	Max
0.035	18.0-20.0	2.0	8.0-13.0	0.040	0.030	0.75

*304H Carbon Content .04 Min. Measure

DESCRIPTION

304 stainless is a low carbon (0.08% max) version of basic 18-8 also known as 302. Type 302 has 18% chromium and 8% nickel. Type 304 has slightly lower strength than 302 due to its lower carbon content. Type 304 finds extensive use in welding applications because the low carbon permits some exposure in the carbide precipitation rang of 800° F – 1500° F without the need for post-annealing operations. However, the severity of corrosive environments may necessitate annealing after welding or the use of 304L. Type 304L has a carbon content of 0.03% or less. This alloy can be used in the as-welded condition without becoming susceptible to intergranular corrosion.

DESIGN FEATURES

- Oxidation resistance up to 1650° F for continuous service and up to 1500° F where cyclic heating is involved.
- General purpose corrosion resistance.
- Non-hardenable except by cold working.
- Non-magnetic except when cold worked.

- May be susceptible to chloride stress corrosion cracking
- Used where field working is employed.

TYPICAL APPLICATIONS

Sanitary
Dairy and Food Processing
Heat exchangers, evaporators
Feedwater heaters

TENSILE REQUIREMENTS

Tensile Strength	Yield Strength
(KSI)	(KSI)
70	25

KSI can be converted to MPA (Megapascals) by multiplying by 6.895.

James Duva Inc. stocks 304/304L and 304/304H.

* Denotes Seamless