

# 304/304L

(UNS S30400/S30403)

## Availability:

Seamless Pipe: 1/4" - 24"  
Weld Pipe: 1/2" - 36"  
Butt-Weld Fit: 1/2" - 36"  
Butt-Weld Fit SMLS: 1/2" - 36"  
Pressure Fittings: 1/4" - 4"  
150# Fittings/Nipples: 1/4" - 6"  
Valves: 1/2" - 24"  
Tubing: 1/4", 3/8", 1/2", 3/4", 1"  
Flanges: 1/2" - 36"  
Bar: 1/8" - 12"

## Specifications:

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

## 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 a slightly lower strength than 302 due to its lower carbon content. Type 304 is used in welding applications, because the low carbon permits some exposure in the carbide precipitation range of 800° F - 1500° F without the need for post-annealing operations. However, the severity of the corrosive environments may necessitate annealing after welding or the use of 304L. Type 304L has a carbon content of 0.03% or less.

## Typical Applications:

- Sanitary systems
- Dairy and food processing
- Heat exchangers, evaporators
- Feedwater heaters

## Tensile Requirements:

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

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

## 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	0.045	0.030	1.00