

## 304/304L (UNS S30400/S30403)

### Description

304 stainless is a low-carbon (0.08% max) version of the 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.

### 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	2.00	8.0-13.0	0.045	0.030	1.00

### Tensile Requirements

Tensile Strength: (KSI) = 70

Yield Strength: (KSI) = 25

(KSI converts to MPA {Megapascals} by multiplying by 6.895)

### Typical Application

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

# TRUPPLY