

**Stainless Steel**
**1.4301 (304)**
**Datasheet Updated**

05 August 2021

RANGE				Product Form	Description	Metric Sizes	Imp Size
Product Form	Description	Metric Sizes	Imperial Sizes				
Round Bar	Bright Drawn H9	2.0mm - 25.0mm	1/8" - 1"	Square Tube	Welded, Unpolished	12.7mm x 12.7mm - 250mm x 250mm	
Round Bar	Smooth Turned H9/H10	25.0mm - 60.0mm	1" - 3"	Rectangular Tube	Welded, Unpolished	80mm x 40mm - 250mm x 150mm	
Flat Bar	Rolled Edge	12mm x 3mm - 100mm x 12mm		Rectangular Tube	Welded, Dull Polished	20mm x 10mm - 150mm x 100mm	
Square Bar	304S11/S31	12mm - 50mm x 50mm		<b>Sheet</b>			
		20mm x 20mm x 3mm - 100mm x 100mm x 10mm		Product Type	Sheet Size	Thicknesses	
Angle	304S31			Sheet 2B Finish	2000 x 1000	0.5mm - 3.0mm	
Welded Ornamental Tube	Mirror Polished 600 Grit	30mm - 50mm	1/2" - 4"	Sheet 2B Finish	2500 x 1250	0.5mm - 6.0mm	
Welded Tube	Satin Polished 320 Grit	16mm - 50mm	1/2" - 2"	Sheet 2B Finish	3000 x 1500	0.9mm - 3.0mm	
				Sheet 2R (BA) Finish	2000 x 1000	0.5mm - 2.0mm	
Square Tube	Welded, Dull Polished	12.7mm x 12.7mm - 10mm - 100mm		Sheet 2R (BA) Finish	2500 x 1250	0.5mm - 2.0mm	
				Polished Sheet 240 Silicon	2000 x 1000	0.6mm - 3.0mm	
				Polished Sheet 240 Silicon	2500 x 1250	0.7mm - 6.0mm	
Handrail Section	Welded, Unannealed, Dull Polished	42.40mm - 60.30 (2.5mm wall)	1 1/2" - 4" (3mm wall)	Polished Sheet 240 Silicon	3000 x 1500	1.0mm - 3.0mm	
				Perforated Sheet (Round Holes)	2000 x 1000	1.0mm - 1.5mm	

Product Type	Sheet Size	Thicknesses
Perforated Sheet (Round Holes)	2500 x 1250	0.7mm - 1.5mm
Perforated Sheet (Square Holes)	2000 x 1000	1.5mm
CPP Plate ID Finish	2000 x 1000	3.0mm - 6.0mm
CPP Plate ID Finish	2500 x 1250	3.0mm - 12.0mm
CPP Plate ID Finish	3000 x 1500	3.0mm - 12.0mm
CPP Plate ID Finish	4000 x 2000	2.0mm - 12.0mm
Qaurto Plate ID Finish	5" - 125"	-
Welded Mesh	90" x 48"	-
Treadplate	3000 x 1000	3.0mm
Traedplate	3000 x 1250	4.5mm - 8.0mm

## SPECIFICATIONS

Commercial	304
EN	1.4301

The most versatile and widely used chromium-nickel (18/8) austenitic stainless steel.

## CHEMICAL COMPOSITION

### EN 10088-3:2005

#### 1.4301 Steel

Element	% Present
Carbon (C)	0.00 - 0.07
Chromium (Cr)	17.50 - 19.50
Manganese (Mn)	0.00 - 2.00
Nickel (Ni)	8.00 - 10.50
Nitrogen (N)	0.00 - 0.11
Phosphorous (P)	0.00 - 0.05
Silicon (Si)	0.00 - 1.00
Sulphur (S)	0.00 - 0.03
Iron (Fe)	Balance

## ALLOY DESIGNATIONS

Stainless steel grade 1.4301/304 also corresponds to the following designations **but may not be a direct equivalent**:

- S30400
- 304S15
- 304S16
- 304S31
- EN58E

## SUPPLIED FORMS

- Bar
- Fittings & Flanges
- Strip
- Pipe
- Tube
- Sheet
- Rod
- Plate

## APPLICATIONS

- Sinks and splashbacks
- Saucepans
- Cutlery and flatware
- Architectural panelling
- Sanitaryware and troughs
- Tubing
- Brewery, dairy, food and pharmaceutical production equipment
- Springs, nuts, bolts and screws

## CHARACTERISTICS

- Excellent welding & forming properties
- High corrosion resistance
- Excellent drawing properties
- Machinability is reasonable

## MECHANICAL PROPERTIES

### EN 10088-3:2005

#### Bar & Section Up to 160mm Dia / Thickness

Property	Value
Elongation A50 mm	45 Min %
Hardness Brinell	215 Max HB
Proof Stress	190 Min MPa
Tensile Strength	500 to 700 MPa

### EN 10088-2:2005

#### Sheet Up to 8mm Thick

Property	Value
Proof Stress	230 Min MPa
Tensile Strength	540 to 750 Mpa
Elongation A50 mm	45 Min %

### EN 10088-2:2005

#### Plate From 8mm to 75mm thick

Property	Value
Proof Stress	210 Min MPa
Tensile Strength	520 to 720 MPa
Elongation A50 mm	45Min %

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