

Technical Specifications Stainless Steel Straps



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STAINLESS STEEL STRAPS – Technical Specifications

1 – Introduction

This document aims to detail the technical characteristics, mechanical properties, and applications of BI Connections Stainless Steel Straps, designed to offer reliable and long-lasting performance in industrial, electrical, and telecommunications environments.

2 – Description

BI Connections stainless steel straps are manufactured in AISI 201, AISI 304, or AISI 316 steel through a cold-rolling process that ensures a uniform surface, high mechanical strength, and excellent corrosion resistance.

Their design allows safe use in extreme conditions, withstanding temperatures up to 600 °C, high humidity, and exposure to aggressive chemical substances (acids and alkalis).

The product is ideal for fastening electrical boxes, advertising structures, piping systems, insulating materials, and telecommunications equipment.



3 – Characteristics

3.1 – General Characteristics

- Manufactured in stainless steel AISI 201, 304, or 316.
- High tensile strength (greater than 900 MPa).
- Elongation above 50%.
- Heat resistance up to 600 °C.
- Excellent corrosion resistance.
- Compatible with aggressive chemical environments.
- Recyclable material with low environmental impact.
- Supplied in 30.5 m rolls with cardboard or plastic packaging.
- Smooth, burr-free surface for safe handling.

3.2 – Chemical Composition (by steel type)

Element	AISI 201 (%)	AISI 304 (%)	AISI 316 (%)
C	≤ 0.015	≤ 0.08	≤ 0.08
Mn	5.5 – 7.5	≤ 2.00	≤ 2.00
Si	≤ 0.75	≤ 0.75	≤ 0.75
P	≤ 0.06	≤ 0.045	≤ 0.045
S	≤ 0.03	≤ 0.03	≤ 0.03
Cr	16 – 18	18 – 20	16 – 18
Ni	3.5 – 5.5	8 – 10.5	10 – 14
Mo	–	–	2 – 3

3.3 – Mechanical Characteristics

Steel Type	Tensile Strength (MPa)	Yield Strength (MPa)	Elongation (%)	Rockwell Hardness (HRB)
AISI 201	≥ 900	450	≥ 50	≤ 100
AISI 304	≥ 750	300	≥ 50	≤ 92
AISI 316	≥ 750	400	≥ 50	≤ 95

4 – Available Dimensions

AISI 201

Thickness (mm)	Width (pulgadas)	Length (m)
0.65	1/4"	30.5
0.65	3/8"	30.5
0.74	1/2"	30.5
0.74	5/8"	30.5
0.74	3/4"	30.5

AISI 304

Thickness (mm)	Width (pulgadas)	Length (m)
0.50	1/4"	30.5
0.76	3/8"	30.5
0.76	1/2"	30.5
0.76	5/8"	30.5
0.76	3/4"	30.5

AISI 316

Thickness (mm)	Width (pulgadas)	Length (m)
0.51	1/4"	30.5
0.51	3/8"	30.5
0.51	1/2"	30.5
0.51	5/8"	30.5
0.51	3/4"	30.5

5 – Packaging and Presentation

Each roll is delivered in individual cardboard or plastic packaging, according to customer requirements.

All materials comply with international standards ASTM A240, BS 144912, EN 1008, and JIS G4304, guaranteeing traceability and quality control throughout the production line.

