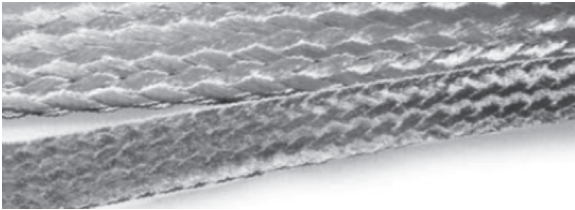




## Product Overview

Stainless Steel Braid Products is a division of Tranect Ltd, based in Liverpool, England. We are ISO9001:2008 accredited design, manufacturing and distribution company with a reputation for customer service, quality and price.

We use 316 grade stainless steel braid for maximum corrosion resistance with pressed, soldered, brazed or welded end connectors to suit your application. Our braids are used in hostile north sea oilfield, external steelwork in high rise buildings, clinical, catering and nuclear applications.



## Flat Braid

Wide range of sizes available from stock



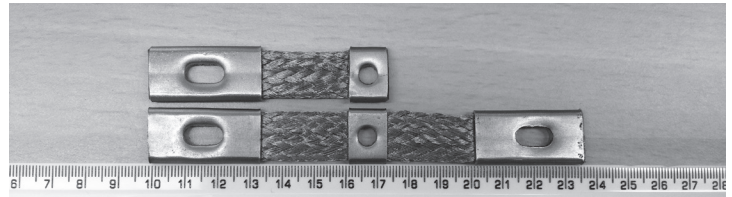
## Round Braid

Can be fitted with flat terminations or with lug connectors in stainless steel.



## Shielding Braid

Excellent for clinical and hygiene sensitive environments.



## Earth straps and bonds

Made at our Liverpool factory in our dedicated stainless Steel section.



Proudly British...

Email: [sales@tranect.co.uk](mailto:sales@tranect.co.uk)

Tel: 0151 548 7040 Web: [www.tranect.co.uk](http://www.tranect.co.uk)

VAT No: 768195383 Company No: 04142556



## Stainless Steel Applications

### For the most corrosive environments

- Clinical and Catering
- Marine
- North Sea Oil and Gas
- Construction

Food production equipment is typically manufactured from stainless steel for reasons of hygiene. The same standards of cleanliness require that large amounts of water and detergent are used in regular 'clean down' operations. The combination of bare metal surfaces and water make earth bonding essential in food production environments, especially where lethal voltages are present in the machines being used.

Stainless steel braids are suitable replacements for copper in sulphurous environments, or for interconnection of stainless components in order to reduce the effects of galvanic corrosion. Flexible connections are also more suited to high vibration environments where solid conductors would suffer from cracking and stress failures. They are also easier and quicker to replace than solid components. Stainless steel braids have numerous applications within the North Sea oil and gas industry, especially within the splash zone where copper may corrode more rapidly, or for connecting to steel components as a method to reduce galvanic corrosion. These include the following applications.

- Earthing systems
- Power distribution
- Lightning protection
- Cathodic protection systems

Stainless steel is more resistant to corrosion within the splash zone in marine environments, leading to shorter down-times increased production and greater productivity. Flexible braids are easier to install than solid metal bus bars and are suitable for high vibration environments where solid conductors may suffer from stress fractures and metal fatigue.

## Corrosion Resistance

**Natural Corrosion Resistance of Metals** - When metals are exposed to oxygen in the atmosphere, they form an oxide layer on their surfaces. Some of these oxides are brittle and flake away, exposing more material to the atmosphere. In other metals however, this oxide layer is strong and impermeable, forming a protective layer that protects the material below.

**Processes to Reduce or Prevent Corrosion** - There are a number of methods that can be used to prevent corrosion.

- Replace with a more resistant material - All of Tranect Ltd SSB products are constructed using SS grade 316
- Painting / coating
- Insulate dissimilar metals
- Use sacrificial anodes

**Stainless Passivation** - The passivation of stainless steel is a process performed to make a surface passive, i.e., a surface film is created that causes the surface to lose its chemical reactivity. Stainless steel passivation unipotentilizes the stainless steel with the oxygen absorbed by the metal surface, creating a monomolecular oxide film. Passivation can result in the very much-desired low corrosion rate of the metal. The passivation of stainless steel is performed when free iron, oxide scale, rust, iron particles, metal chips or other non-volatile deposits might adversely affect the metallurgical or sanitary condition or stability of the surface, the mechanical operation of a part, component or system, or contaminate the process fluid. Passivation is performed on clean stainless steel, providing the surface has been thoroughly cleaned or descaled. Since the term "passivation" is used to describe distinctly different operations or processes relating to stainless steels, it is necessary to define precisely what is meant by passivation.

# Flat Braid

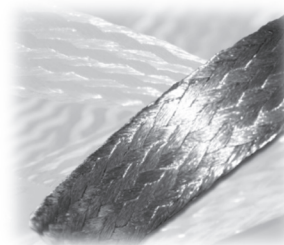
## Description

Constructed from grade 316 stainless steel wire - stainless steel flat braid can be supplied in a variety of widths - wire diameters may vary from time to time so if required please ask when placing an enquiry.

We carry the following items as stock items and they can be ordered by the meter. Check [www.tranect.co.uk](http://www.tranect.co.uk) for our latest pricing information.

If you need a specific construction please let us know and we'll endeavour to assist.

Standard Flat Braid		
Part Code	CSA	Width
SSF10	10mm <sup>2</sup>	15mm
SSF16	16mm <sup>2</sup>	20mm
SSF25	35mm <sup>2</sup>	25mm
SSF50	50mm <sup>2</sup>	30mm



# Round

## Description

Constructed from grade 316 stainless steel wire - stainless steel round braid can be supplied in a variety of diameters - wire diameters may vary from time to time so if required please ask when placing an enquiry.

We carry the following items as stock items and they can be ordered by the meter. Check [www.tranect.co.uk](http://www.tranect.co.uk) for our latest pricing information.

If you need a specific construction please let us know and we'll endeavour to assist.

Standard Flat Braid		
Part Code	CSA	Diameter
SSR10	10mm <sup>2</sup>	5.5mm
SSR16	16mm <sup>2</sup>	6.5mm
SSR25	35mm <sup>2</sup>	10mm
SSR50	50mm <sup>2</sup>	12mm



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# Braided

## Description

Tubular stainless steel braid is used for EMC and mechanical protection. This product is currently made to order. Please contact us with details of your requirements.

## Components

### Earth Straps

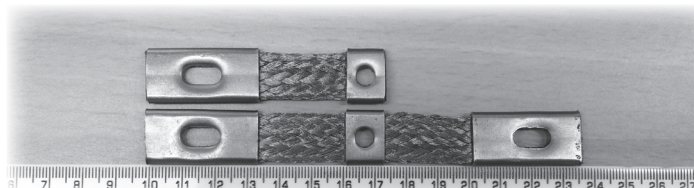
Constructed from grade 316 stainless steel braid as our base material Stainless Steel Braid Products use 316 material again to complete the integral lug fittings – this ensures a 100% 316 grade product. We can tin dip the lugs following strap production in order to increase electrical conductivity.

### Earth Bonds

Constructed from grade 316 stainless steel braid as our base material Stainless Steel Braid Products can then apply Complementary terminals to meet your requirements.

Stainless Steel Braid Products also produce Hybrid Stainless Steel / copper bonds use copper braid with stainless steel end fittings. This is an effective compromise between the good corrosion resistance of the stainless steel and the good electrical conductivity of copper.

In the picture opposite is a tin coated copper braid that has been silver soldered into specially made stainless steel lugs. The silver solder acts as electrolytic protection for the copper.



1	2	3	4				
Part Code	CSA	Length	Stud Hole Size Range	Braid Nominal Width (mm)	Integral Ferrule Nominal (mm)	Stud Hole Off Set (mm)	Pack Sizes (Pc's)
SES	(mm <sup>2</sup> )	(mm)	(Mxx)				
SES	10	100	M6	15	W18xL18D2	Centralised	5,10,25
SES	10	200	M6	15	W18xL18D2	Centralised	5,10,25
SES	10	300	M6	15	W18xL18D2	Centralised	5,10,25
SES	16	100	M6,8,10,12	20	W23xL25D3	Centralised	5,10,25
SES	16	200	M6,8,10,12	20	W23xL25D3	Centralised	5,10,25
SES	16	300	M6,8,10,12	20	W23xL25D3	Centralised	5,10,25
SES	35	100	M6,8,10,12,16	25	W23xL25D3	Centralised	5,10,25
SES	35	200	M6,8,10,12,16	25	W23xL25D3	Centralised	5,10,25
SES	35	300	M6,8,10,12,16	25	W23xL25D3	Centralised	5,10,25

