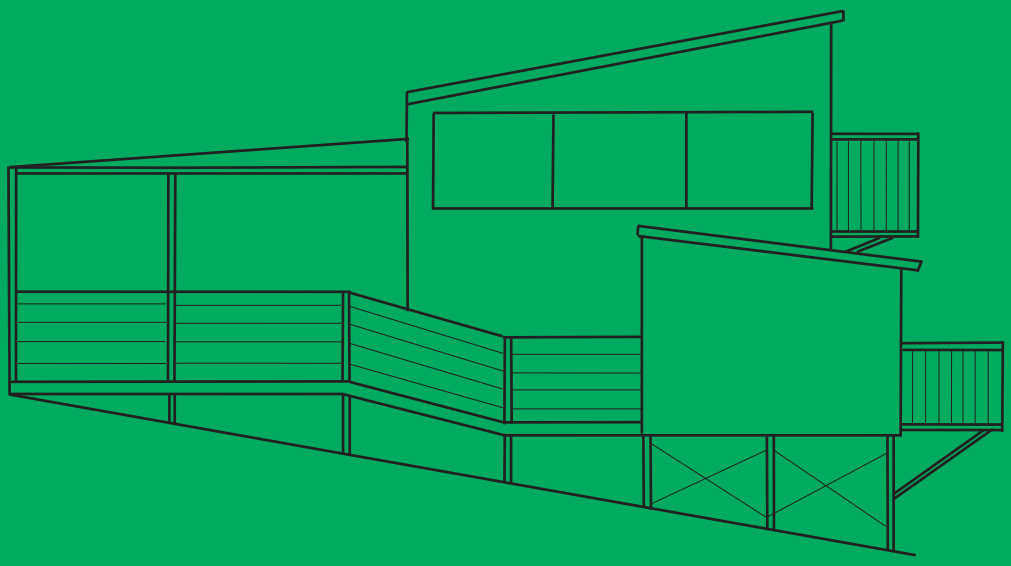
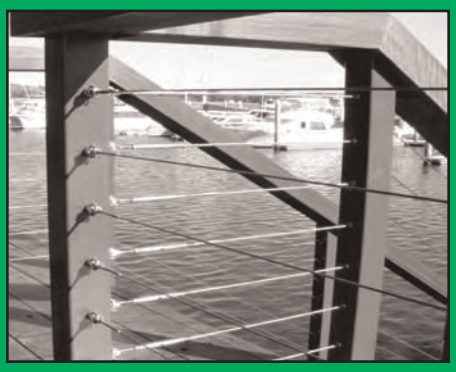
BRIDCO

STAINLESS STEEL HARDWARE AND WIRE ROPE FITTINGS

Wire Rope



Balustrading Systems



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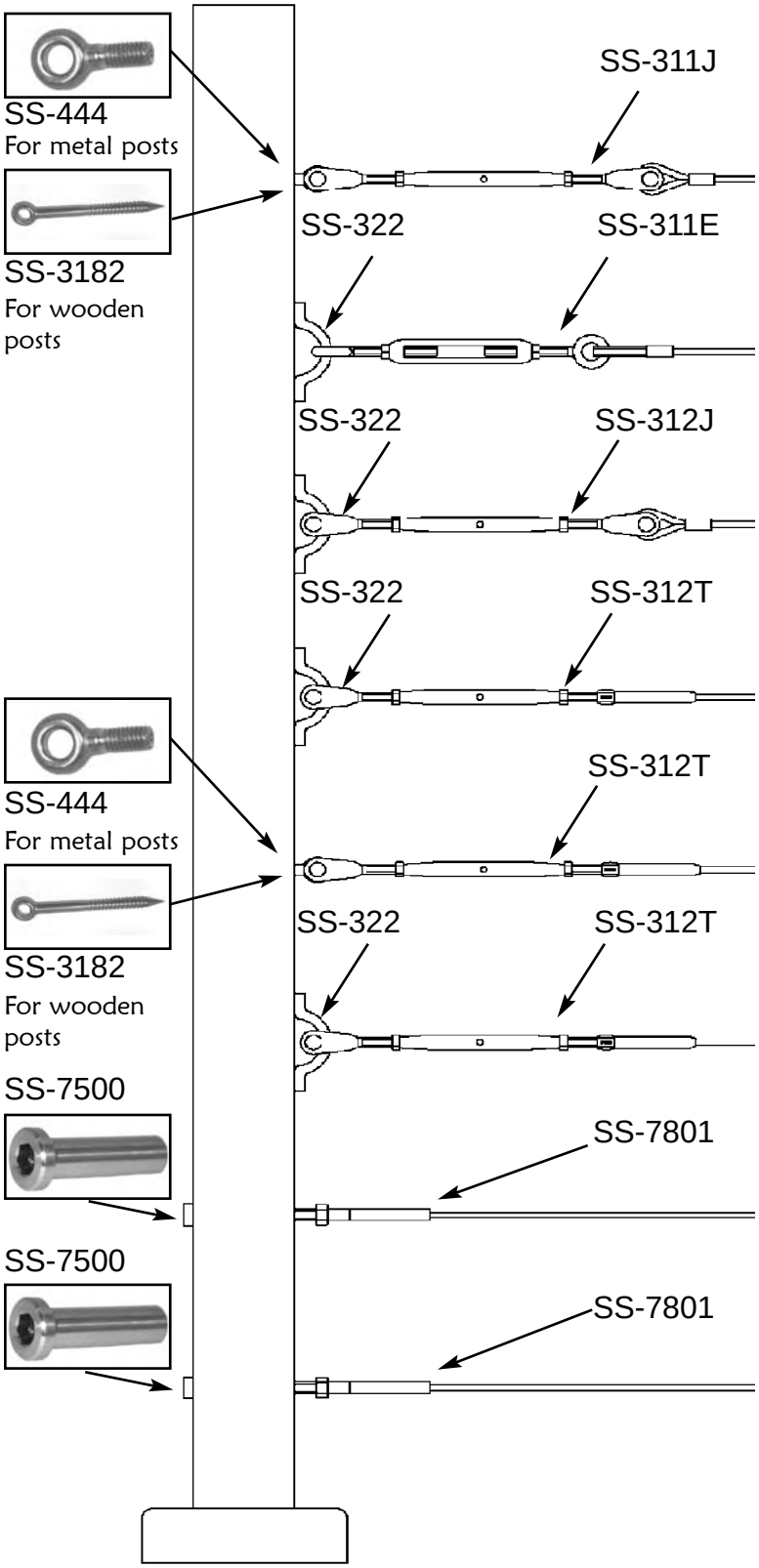
DETAILS HERE

BRIDCO
STAINLESS STEEL HARDWARE AND WIRE ROPE FITTINGS

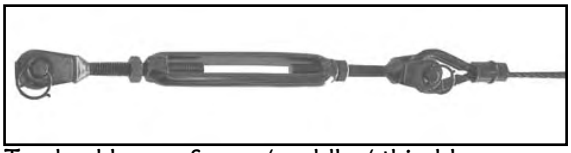
1

COMMON BALUSTRADE STYLE

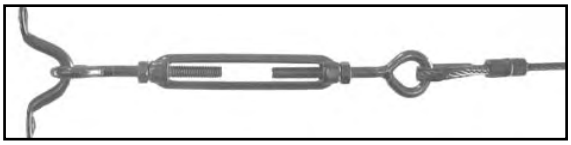
Grade 316 Stainless Steel Wire Rope Fittings



Turnbuckle eye & eye / eye bolt / thimble



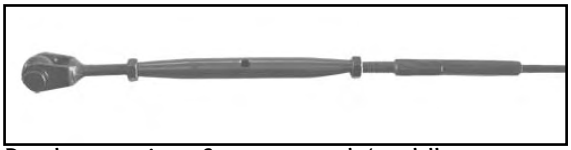
Turnbuckle eye & eye / saddle / thimble



Bottlescrew jaw & jaw / saddle / thimble

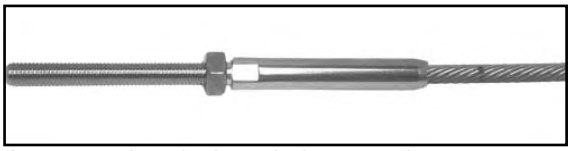
Bottlescrew jaw & swage stud / saddle

Bottlescrew jaw & swage stud / eye bolt

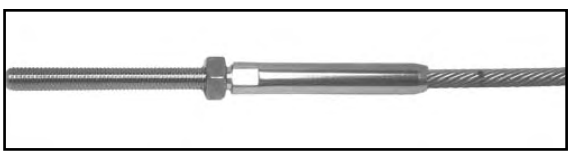


Bottlescrew jaw & swage stud / saddle

Swage stud with threaded terminal



Swage stud with threaded terminal

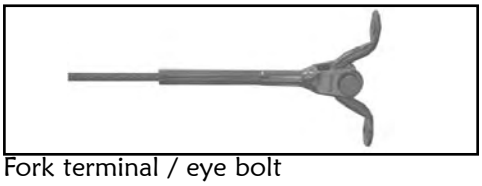


To ensure your balustrade meets the requirements of any applicable standards and/or building codes visit http//hia.com.au/

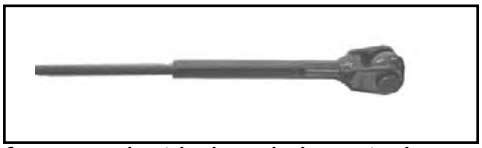
COMMON BALUSTRADE STYLE

Grade 316 Stainless Steel Wire Rope Fittings

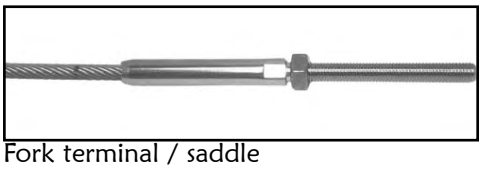
Fork terminal / saddle



Fork terminal / eye bolt

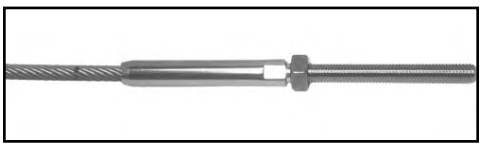


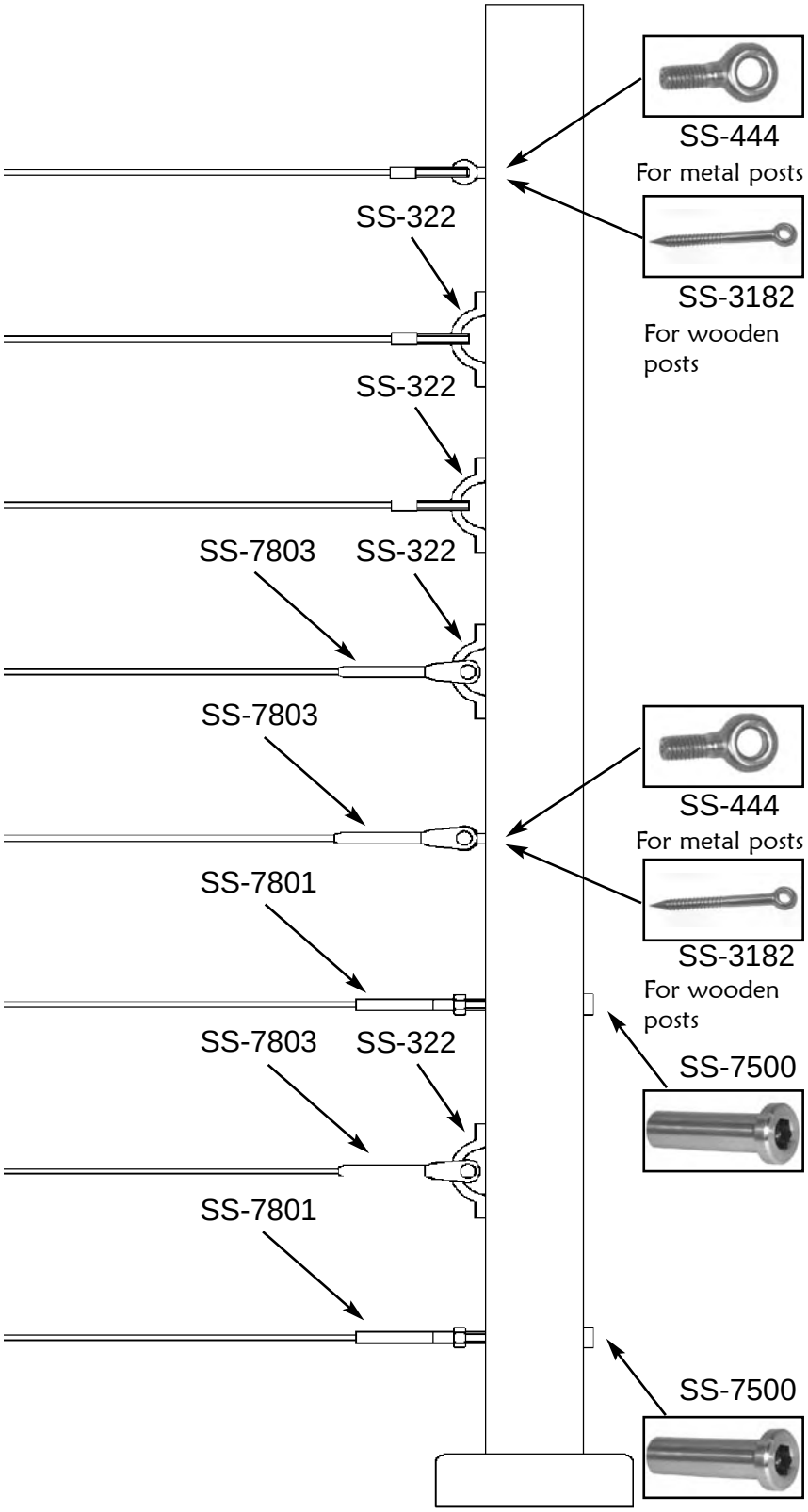
Swage stud with threaded terminal



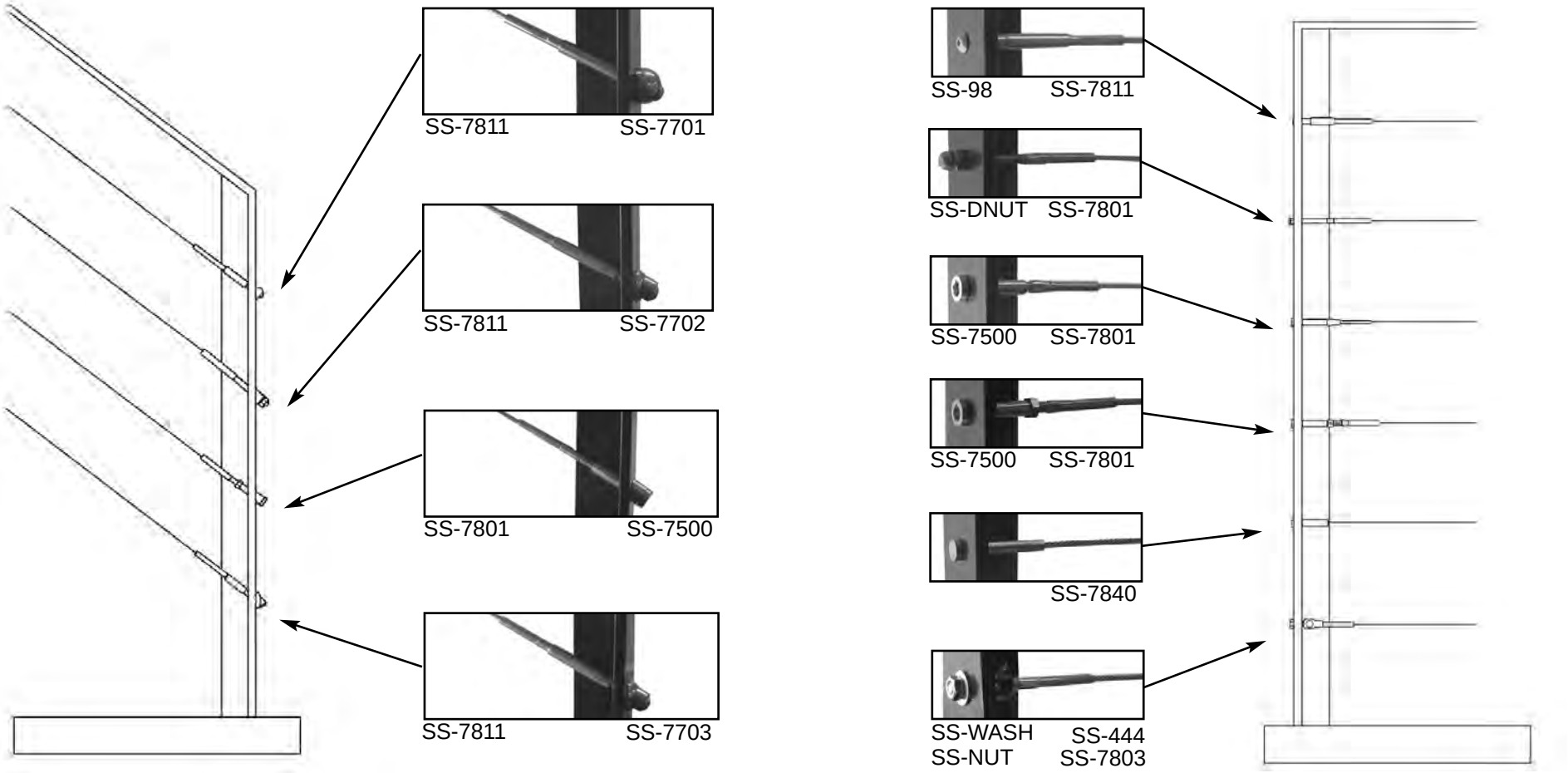
Fork terminal / saddle

Swage stud with threaded terminal





The termination with ball is ideally suited to stairways - being able to adapt to almost any angle.



For larger assemblies plus a full range of rigging hardware, refer to the **Bridco Catalogue** or your local distributor.

Choose any system of combination. All fittings suitable for popular 1/8" (3mm) and 5/32" (4mm) wire sizes. Other sizes available for most systems.

CHOOSING STAINLESS STEEL

GRADES: There are many grades of Stainless Steel. You should check the grade of any particular component before selling, purchasing, treating, recommending or using that component for any particular purpose. The majority of Bridco stainless steel fittings are either grade 304, 316 or 316L, which are members of the Austenitic family. The guidelines and recommendations in this brochure are related to these grades.
GRADE 304: Has good corrosion resistance and is one of the most commonly used grades of stainless steel.
GRADE 316: Has a higher level of corrosion resistance. The grade 316 is often referred to as "marine grade". Typical applications are boat fittings and architectural components for exposed coastal applications.
GRADE 316L: Has similar properties to grade 316, however has an even higher level of corrosion resistance and is most suited to welding due to low carbon content.

Magnetism

Generally stainless steel Grade 304 and Grade 316 is non magnetic, however these grades can be become slightly magnetic due to cold working such as machining and linishing or from high temperature welding. Cast products can also be slightly magnetic.

Corrosion Resistance

Selection and installation of appropriate fittings should always be made having regard to the installation environment, access to regular inspection and maintenance and the use to which the products will be put. The following information may help better understand the factors and issues relating to corrosion in stainless steel.

Surface finish

The better the surface finish the better the resistance to corrosion.

For high salt or commercial applications Grade 316 with a high or mirror polish should be used

Satin finished products require extra maintenance especially in high salt environments and are generally not recommended for such applications.
Rough surface finishes promote tea staining: The smoother the surface finish, the better. A surface roughness (Ra) of less than 0.5 micrometers is strongly recommended.
Further treatments such as passivating or electrolyzing will also promote better corrosion resistance.

Please note that modular hand rail fittings, open body turnbuckles etc. due to their design, also require more regular maintenance due to gaps and crevices that may trap foreign contaminants.

Tea Staining and Corrosion

Tea staining can be defined as: discoloration of the surface of stainless steel that does not affect the structural integrity or the longevity of the material. However if left unattended tee staining can progress to more severe pit corrosion. Pit corrosion is a localized form of surface corrosion which results in small pits or perforations. Embedded iron particles will also promote pit corrosion. Pit corrosion can ultimately damage the surface finish.

Environmental factors

Tea staining occurs most commonly within about 5 kilometers from salt water and becomes progressively worse closer to the source particularly if there is salt spray . However, wind exposure, pollution levels and higher temperatures can create environments where tea staining might occur 20 kilometers or more from the salt water or source of pollution.

Installation and inspection

After installation the completed structure should be washed and inspected for imperfections or contaminants caused by the installation process. Hand held tools inc; allen keys, spanners, metal grinders and sanders, leave fine metal filings that will promote rust stains. If discovered, imperfections should be cleaned off and polished with a suitable stainless polish. Nitric acid based cleaners, such as Bridco B40, dissolve metal contaminates and promote passivation.
Hydrochloric acid, sometimes used to clean cement or mortar residues, should NOT be used on stainless steel as it will stain the surface and may start more serious corrosion.

On building sites it may be required to re-clean assemblies after the building project is completed.

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STAINLESS STEEL CLEANING & MAINTENANCE

Maintain Regularly

Stainless Steel is not maintenance free but maintenance friendly. When using stainless steel material outdoors you need to clean periodically, especially in aggressive environments like near salt water, coastal areas or swimming pools. Washing regularly will reduce the risk of tea staining. For best results wash with soap or mild detergent and warm water, followed by rinsing with cold water. The appearance of the surface can be improved further if the washed surface is wiped dry.
The schedule for cleaning will vary depending on location and finish. As a general guide use your windows. If your windows are dirty or salty so is the stainless steel.
For further information on stainless steel cleaning and maintenance visit **www.euro-inox.org/**

Maintenance of external applications

Rainfall on a regular basis will remove dirt, dust and other deposits from stainless steel if the design of the facade allows. In most parts of Australia however, there is often insufficient rainfall to effectively clean external fittings. Bridco therefore recommend the use of the cleaning schedule below.

Stainless Steel Cleaning Schedule

Environment	Distance from beachfront or sheltered bay	Cleaning Interval
Mild	15km+	Every 12 months
Moderate	1 - 15 km	Every 4 - 6 months
Marine/Industrial/Urban	500m - beachfront / 100m - 1km - sheltered bay	Every 3 months
Severe marine/Industrial/Busy Urban	500m - beachfront / 100m - sheltered bay	Weekly

Stainless Steel Cleaner & Polish

Bridco have our own brand of Australian made stainless steel cleaner and polish, we recommend for stainless steel maintenance.

B40 Stainless Steel Cleaner

B40 Stainless Steel Cleaner by Bridco is a mixture of acids, selected solvents and surfactants specially designed to remove tea staining and grout from stainless steel stanchions, rails, stainless steel wire rope, etc.
B40 will not corrode stainless nor will it turn green or brown as hydrochloric based cleaners will.
For best results B40 should be followed by B42 Stainless Steel Polish.

* A hazardous goods surcharge of +50% is applied to all freight costs for B40*
Standard box contains 6 x 500ml spray bottles (Hazardous Cargo)
20 Litre bulk containers also available.

B42 Stainless Steel Polish

B42 Stainless Steel Polish is especially designed to remove tea staining and fine scratches from stainless steel railings and fittings, etc.
B42 deposits a protective, low surface energy water resistant layer, which repels water and air borne contaminants for several months, before re-application may be required.

Standard box contains 15 x 250 ml bottles.

7 Bridco have a system to suit any application.

A selection of installation methods and fittings are displayed in this brochure.
Any combination of fitting is available. Some systems are possible with simple hand tools while other systems require the use of a hydraulic press.

What grade of Stainless Steel?

The two most common grades are #304 and #316.

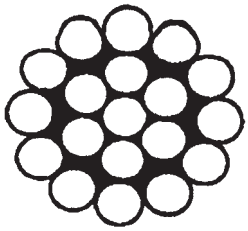
#304 is commonly used in areas not exposed to high corrosive atmospheres, i.e. internal or inland locations. It offers a good level of corrosion resistance but can stain if exposed to a heavy salt environment.

#316 offers a higher degree of corrosion resistance and is often referred to as “marine grade”. #316 therefore is suited to more extreme conditions.

Maintenance.

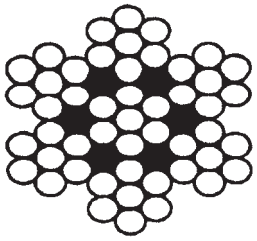
Both the 304 and 316 grades of stainless steel have good to excellent resistance to corrosion. Various factors can however affect their performance. It is an often held belief that stainless steel is “maintenance free”, this however is not necessarily correct.
All grades of stainless steel are susceptible to some form of staining and periodic cleaning is required. (refer page 4 for cleaning & maintenance).
In heavy corrosive environments, such as beach frontages, regular fresh water wash downs plus the use of stainless steel cleaners and polishes will help maintain the clean fresh look and minimise tea staining.

The most common styles of Stainless Steel Wire Rope:



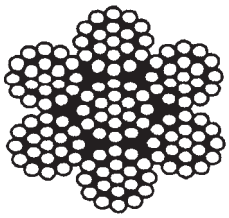
1 x 19

A stiff wire rope made up of 19 single strands.
Commonly used for standing rigging, mast stays, etc.
Has a smooth finish and looks good with swage terminals.



7 x 7

Semi flexible.
Easy to hand crimp and capable of limited angles.
Commonly used on balustrading and safety rails.



7 x 19

Very Flexible.
Easiest to hand crimp.
Used for running rigging or where sharp turns are required.