

Corrosion – the enemy on and at sea and how to keep it at bay

Hello ,

At the end of the year, we would like to focus on a topic that is often as present on board as it is annoying: **corrosion**.

For metals that are permanently in contact with water and oxygen, corrosion is a constant danger. To counteract this, ordinary steel is "refined" by an alloy of iron, chromium and nickel. However, when used continuously in humid and salty environments, stainless steel can also corrode. This affects metal parts on deck and underwater equally, because in salty air and high humidity, the extent of corrosion is almost as severe as when the steel is in seawater.

The right care

The whole ship should be regularly cleaned from salt. Here it is not enough to desalinate only the stainless steel parts by washing. It also helps to polish the stainless steel parts on deck with felt to seal the surface. Rough products or towels as well as microfiber cloths should be avoided during the care process. Chamois leather or cotton cloths are the materials of choice.

The passive layer

To prevent the formation of corrosion, an intact passive layer of the stainless steel is required. This is created by the reaction of oxygen with the chromium content of the stainless steel and forms on its own. In case of damage, 80 percent phosphoric acid supports the reconstruction.

Go for duplex

Duplex steels have exceptionally **good corrosion resistance** due to their high chromium content, combined with high strength (twice as high as conventional austenitic stainless steel). **The PRE (Pitting Resistance Equivalent) value** is a measure of the pitting resistance of a stainless steel. **The higher the PRE value, the more corrosion resistant the steel. From a value of 32, a steel is classified as seawater resistant.**

Additional methods to prevent corrosion:

- Apply oils, greases and water-displacing substances to prevent water getting in contact with the metal surface by forming a protective film.
- Chemical solutions added to water to reduce its corrosive effect, for example antifreeze in the internal circuit of the diesel engine
- Chemical solutions that reduce humidity, for example, silica or dehumidifier granules
- A sacrificial anode or zinc coating that sacrifices itself to protect the more noble metal

*Product recommendations:



Round steel chain short link
831544

Duplex 1.4462,
PRE value: 35
D6 (1 m),
similar to ISO 4565

[shop](#)



Thimble heavy duty
81505844

Duplex 1.4462,
PRE value: 35
D6, MT series

[shop](#)



Auger bolt with right-hand thread
81510744

Duplex 1.4462,
PRE value: 35
D6, MT series

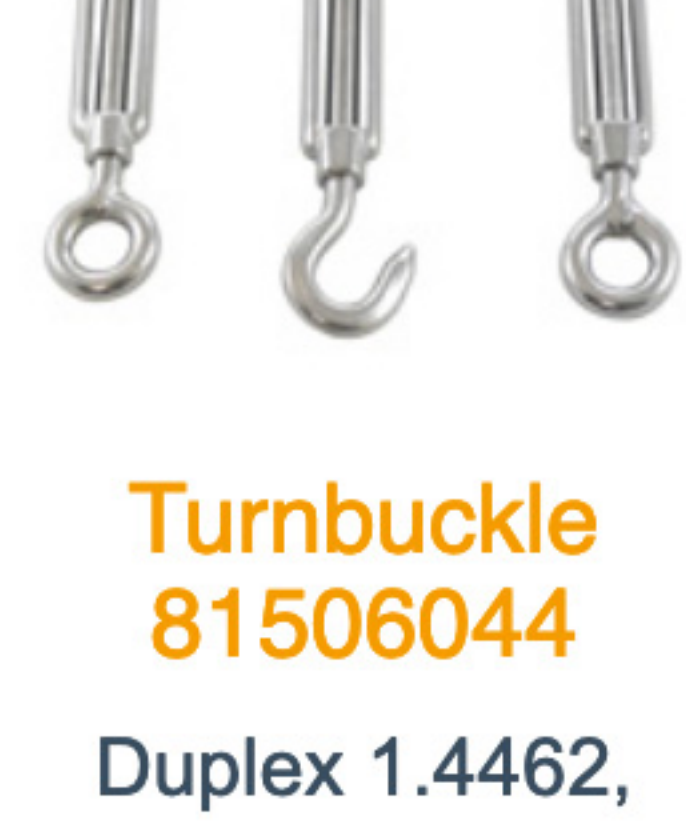
[shop](#)



Wire rope clamp
81505944

Duplex 1.4462,
PRE value: 35
D6, MT series

[shop](#)



Turnbuckle
81506044

Duplex 1.4462,
PRE value: 35
D6, MT series

[shop](#)



Turnbuckle nut
81510944

Duplex 1.4462,
PRE value: 35
D6, similar to ISO 1480,
MT series

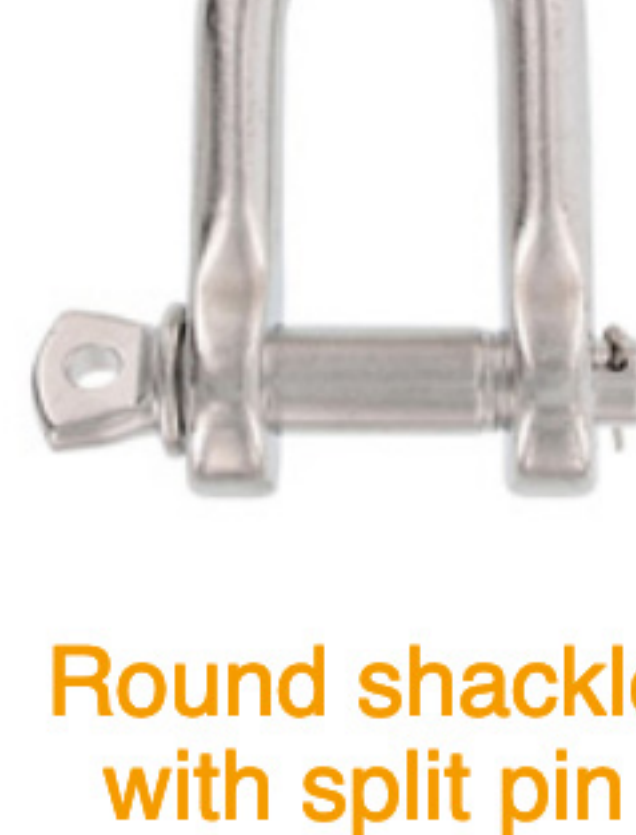
[shop](#)



Stainless steel wire rope medium soft 7x7
81505544

Duplex 1.4462,
PRE value: 35
D6, (250 m), MT series

[shop](#)



Round shackle with split pin
81511344

Duplex 1.4462,
PRE value: 35
D6

[shop](#)

We are celebrating a birthday!

In 2023, Marinetech will be 30 years old and we want to celebrate with you. **In this case, the gifts will come from us.**



All year round you get 3% on all orders in our webshop.

[webshop](#)



In addition, a different product group is reduced by up to 10% every month.

Be curious about 2023!

Hohoho...



A turbulent year 2022 is drawing to a close. Despite great challenges, we have done our utmost to support you, our customers, in the best possible way. **Thanks to our competent staff, your perseverance and with the help of our long-standing partners, we have succeeded well.** This makes us truly happy and we thank you from the bottom of our hearts.

We would like to pause for a moment (from 24.12.22 to 01.01.23) and **wish you and your family a relaxing holiday season and a good start to the New Year.** From 02.01.23 it will be business as usual at Marinetech. We are looking forward to it!

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