

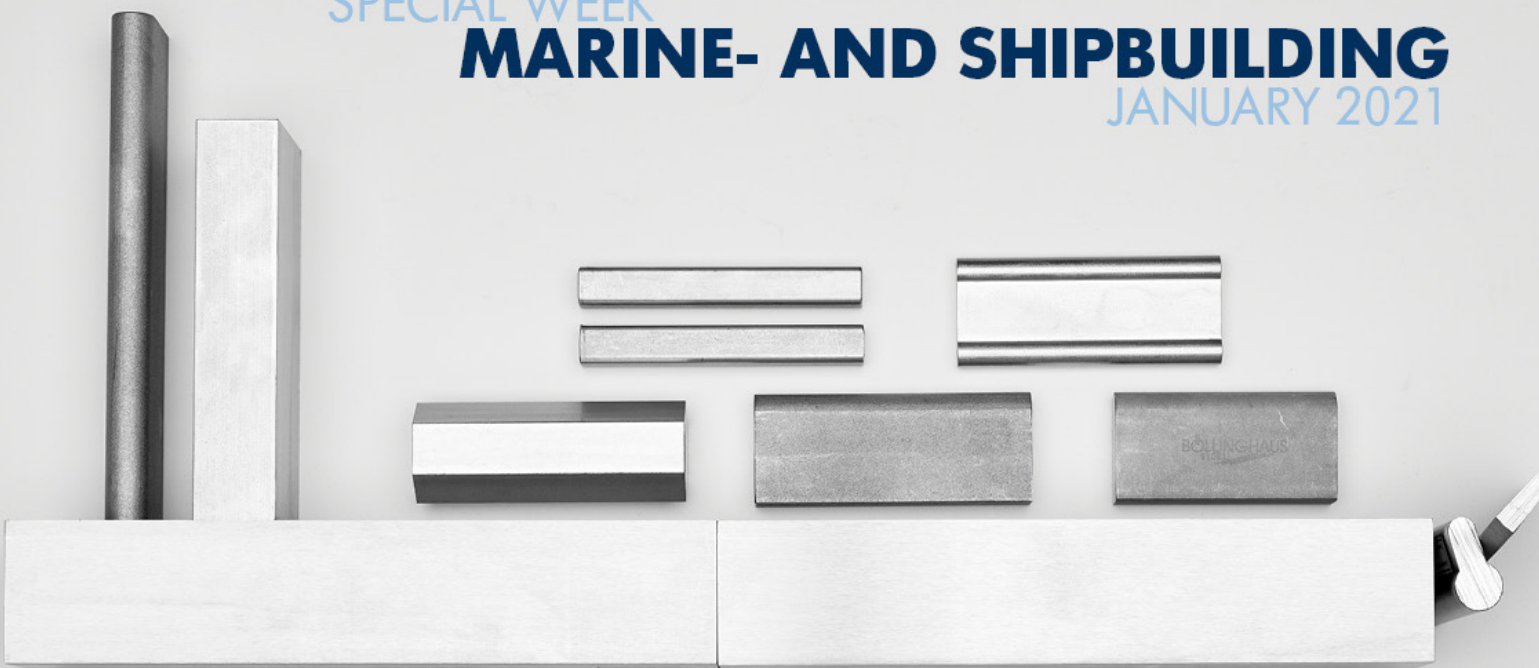
BÖLLINGHAUS STEEL

# THE USE OF STAINLESS STEEL IN THE MARINE- AND SHIPBUILDING INDUSTRY

SPECIAL WEEK

**MARINE- AND SHIPBUILDING**

JANUARY 2021



# STAINLESS STEEL IN THE MARINE- AND SHIPBUILDING INDUSTRY

Especially in harsh environments, metallic materials such as stainless steel are increasingly used to meet growing demands for efficiency and durability in structures. There are many good reasons to consider stainless steel for the marine and shipbuilding industry.

The material's significant properties, including its stiffness retention at high temperatures, ductility and strength make it a popular material for various applications in the marine and shipbuilding industry. Stainless steel has a combination of high residual value (as a result of the alloy content) and great durability, lending itself to extensive reuse, with practical, economic and environmental benefits.

Stainless steel's greatest advantage over other building materials is its corrosion resistance: correctly specified stainless steel does not need corrosion protection and requires only minimal maintenance, resulting in low life cycle costs and lower environmental impact. Because of its protective passivating oxide layer, corrosion is slowed down significantly or completely inhibited. This makes stainless steel extremely durable, easy to maintain and recyclable.

Stainless steels simultaneously meet a wide range of technical challenges and offer very advantageous operating properties with a favorable cost-benefit ratio, especially for demanding industries such as the marine and shipbuilding industry. By taking into consideration the further advantages of stainless steel over carbon steel, including sustainability, the structural use of the material becomes ever more economical and environmentally friendly. Unlike galvanized or painted steel, stainless steels have a self-repairing surface layer, so no protection is required throughout their life cycle. Due to its recyclability, re-usability, long service life, low maintenance, and product safety, emissions from the fabrication and application of stainless steel are minimal compared to those from substitute materials. If a safe, ecological and economical installation system is required, there is no better choice than the application of stainless steel.

Stainless steel long products are characterized by effective physical properties, including low thermal expansion for ferritic grades and low emission when polished. Stainless steel bars can be obtained in various shapes and grades, and their malleability and weldability make them simple to handle during both assembly and installation.

## ABOUT BÖLLINGHAUS STEEL

Böllinghaus Steel is a producer of high-quality stainless steel profiles. Whether standard profile or custom-made, Böllinghaus Steel manufactures stainless steel profiles of proven quality for the highest customer satisfaction.