

APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No: AMMM00002CW Revision No: 1

This is to certify:

That Schoeller-Bleckmann Edelstahlrohr GmbH Rohrstraße 1, 2630 Ternitz, Austria

is an approved manufacturer of **Steel Pipes and Fittings**

in accordance with DNV rules for classification – Ships

and the following particulars:

Product	Pipes		
Steel type(s)	Austenitic and ferritic-austenitic steel pipes,		
	Austenitic stainless,		
	Ferritic-austenitic (Duplex) stainless		
Manufacturing method	Seamless		
Max. outer diameter	See page 2		
Max. wall thickness	See page 2		
Heat treatment condition	See page 2		
Additional approval conditions	Including nickel-base alloys for applications subject to special approval		

Manufacturer(s) approved by this certificate is/are accepted to deliver according to DNV GL, DNV and GL rules. Materials to be applied to DNV classed object shall fulfill the material requirements in the applicable DNV class rules.

Issued at Hamburg on 2022-02-09

This Certificate is valid until **2025-03-31**. DNV local station: **Augsburg**

Approval Engineer: Stefan Röhr

for DNV

Thorsten Lohmann Head of Section

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Particulars of the approval

Austenitic and ferritic-austenitic steel pipes

Steel type / grade 3)	Manufacturing method ¹⁾	Max. outer diameter [mm]	Max. wall thickness [mm]	Heat treatment condition ²⁾
Austenitic stainless	HFS, CFS	220	13	SHT
22Cr duplex	HFS, CFS	168.28	19.06	SHT
25Cr duplex		100.20	18.26	501

Ni-base alloy

Material type / grade ⁴⁾	Manufacturing method ¹⁾	Max. outer diameter [mm]	Max. wall thickness [mm]	Heat treatment condition ²⁾
Ni-base	HFS, CFS	168.28	10.97	acc. to standard

Remarks:

- ¹⁾ HFS: Hot finished seamless; CFS: Cold finished seamless
- ²⁾ SHT: Solution Heat Treated (solution annealing)
- ³⁾ Suitable pipe grades shall be selected from the following recognized standards: ISO 9329 Part 4, ISO 9330 Part 6, EN 10216 Part 5, EN 10217 Part 7, ASTM A269, ASTM A312, ASTM A358, ASTM A789, ASTM A790, ASTM A928 or JIS G3459
- ⁴⁾ Ni-base alloy pipes acc. to recognized standards for DNV approved applications