

APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No:
AMMM0000169
Revision No:
1

This is to certify:

That
AB Sandvik Materials Technology
Sandviken, Sweden

is an approved manufacturer of
Steel Pipes and Fittings

in accordance with
DNV GL rules for classification – Ships

and the following particulars:

Product	Pipes
Application area	Austenitic and ferritic-austenitic steel pipes
Steel type	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	See page 2

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 GL classed object shall fulfill the material requirements in the applicable DNV GL class rules.

Issued at **Hamburg** on **2019-11-19**

for **DNV GL**

This Certificate is valid until **2022-12-31**.

DNV GL local station: **Stockholm**

Approval Engineer: **Stefan Röhr**

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Thorsten Lohmann
Head of Section



Job Id: 263.11-006795-2
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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	270	50	SHT
Ferritic-austenitic (Duplex) stainless	HFS/CFS	270	50	SHT

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

Additional approval conditions

Including steelmaking

Including automated non-destructive testing in place of hydraulic testing according to relevant piping standard for wall thickness below 6.35 mm

Including low temperature service for austenitic stainless steel