



APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No:
AMMM00002TE
Revision No:
1

This is to certify:

That

Dalmine S.p.A.
Via Achille Grandi, 100 - Arcore MB,
Italy

is an approved manufacturer of
Steel Pipes and Fittings

in accordance with

DNV rules for classification – Ships
DNV-OS-B101 – Metallic materials
DNV class programme – DNV-CP-0252 Steel pipes and steel pipe fittings

and the following particulars:

Product	Pipes and fittings
Application area	Pipes for pressure systems, Pipes for low-temperature service, Boiler and superheater tubes, Piping fittings
Steel type	Carbon and carbon-manganese, Alloy
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 classed object shall fulfill the material requirements in the applicable DNV class rules.

Issued at **Hamburg** on **2023-09-25**

for **DNV**

This Certificate is valid until **2026-09-30**.

DNV local unit: **Italy/Malta CMC**

Approval Engineer: **Stefan Röhr**

Thorsten Lohmann
Head of Section

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



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Particulars of the approval

**Pipes for pressure systems,
 Boiler and superheater tubes,
 Pipes for low-temperature service,
 Piping fittings**

Steel type /grade 2) 3) 4) 5)	Manufacturing method ¹⁾	Max. outer diameter [mm]	Max. wall thickness [mm]	Heat treatment condition
C and C-Mn Alloy	HFS, CFS	219,1	58	acc. to standard

Remarks:

- 1) HFS: hot finished seamless
CFS: cold finished seamless
- 2) Pipes for pressure systems
Suitable pipe grades shall be selected from the following recognized standards:
ISO 9329 Parts 1 and 2, EN 10216 Parts 1 to 3, EN 10305 Part 1 and 2, ASTM A53, ASTM A106, ASTM A335, JIS G3454, JIS G3455, JIS G3456 or JIS G3458
- 3) Pipes for low-temperature service
Suitable pipe grades shall be selected from the following recognized standards:
ISO 9329 Part 3, EN 10216 Part 4, ASTM A333, ASTM A334 or JIS G3460
- 4) Boiler and superheater tubes
Suitable pipe grades shall be selected from the following recognized standards:
ISO 9329 Part 2, EN 10216 Part 2, ASTM A192, ASTM A179, ASTM A209, ASTM A210, ASTM A213, JIS G3461, JIS G3462 or JIS G3463
- 5) Piping fitting
Suitable pipe fittings shall be selected from the following recognized standards:
EN 10253, ASTM A234, ASTM A420, ASTM A960, ASTM A961, JIS B2312, JIS B2313 or JIS B2316.

Additional approval conditions

Including steel making