



APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No:
AMMM0000057
Revision No:
3

This is to certify:

That

Tubacex Tubes & Pipes Private Ltd.
Umbergaon, Gujarat,
India

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
Application area	Austenitic, 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	Solution heat treated
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 **2023-02-09**

for **DNV**

This Certificate is valid until **2025-09-30**.

DNV local unit: **Mumbai**

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.



Particulars of the approval

Austenitic and Ferritic-austenitic steel pipes

Steel type /grade ^{3) 4)}	Manufacturing method ¹⁾	Max. outer diameter [mm]	Max. wall thickness [mm]	Heat treatment condition ²⁾
Austenitic stainless	HFS, CFS	273,1	9,27	SHT
22Cr duplex stainless 25Cr duplex stainless	HFS, CFS	48,3	3,68	SHT

Remarks:

- 1) HFS: Hot finished seamless
CFS: Cold finished seamless
- 2) SHT: Solution Heat Treated (solution annealing)
- 3) Austenitic and ferritic-austenitic steel pipes
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) Pipes for low-temperature service
Suitable pipe grades shall be selected from the following recognized standards:
ISO 9329 Part 3, ISO 9330 Part 3, EN 10216 Part 4, EN 10217 Part 6, ASTM A333, ASTM A334 or JIS G3460

Additional approval conditions:

Including low temperature service;

Including automated Non-Destructive Testing in place of hydraulic testing according to relevant piping standard