

# APPROVAL OF MANUFACTURER CERTIFICATE

**This is to certify:**

**That**

**Tubacex Prakash India Pvt. Ltd.**  
**Umbergaon, GUJARAT, India**

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

in accordance with  
**DNV GL rules for classification – Ships**  
**DNVGL-OS-B101 – Metallic materials**

and the following particulars:

<b>Product</b>	<b>Pipes</b>
<b>Application area</b>	<b>Austenitic,</b>
	<b>Ferritic-austenitic steel pipes</b>
<b>Steel type</b>	<b>Austenitic stainless,</b>
	<b>Ferritic-austenitic (Duplex) stainless,</b>
	<b>See page 2</b>
<b>Manufacturing method</b>	<b>Seamless</b>
<b>Max. outer diameter</b>	<b>See page 2</b>
<b>Max. wall thickness</b>	<b>See page 2</b>
<b>Heat treatment condition</b>	<b>Solution heat treated</b>
<b>Additional approval conditions</b>	<b>See page 2</b>

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 **2019-10-11**

for **DNV GL**

This Certificate is valid until **2022-09-30**.

DNV GL local station: **Mumbai**

Approval Engineer: **Enno Brück**

**Thorsten Lohmann**  
**Head of Section**



Job Id: **263.11-005202-3**  
Certificate No: **AMMM0000057**  
Revision No: **2**

## Particulars of the approval

### Austenitic and Ferritic-austenitic steel pipes

Steel type /grade <sup>3)4)5)</sup>	Manufacturing method <sup>1)</sup>	Max. outer diameter [mm]	Max. wall thickness [mm]	Heat treatment condition <sup>2)</sup>
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
- 5) Possible application and certification of any material to classed object is subject to case by case approval

#### Additional approval conditions:

- 1. Including low temperature service
- 2. Including automated Non-Destructive Testing in place of hydraulic testing according to relevant piping standard