

# APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No:  
**AMMM00000Y1**  
Revision No:  
**2**

## This is to certify:

That

**TUBE-TEC Rohrverformungstechnik GmbH**  
**Hirtscheider Str. 13-15, 57647 Nistertal,**  
**Germany**

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

in accordance with  
**DNV GL rules for classification – Ships**

and the following particulars:

<b>Product</b>	<b>Tubes and fittings (tube bends, bended tubes, spiral tube coils, cylindrical tube coils)</b>
<b>Application area</b>	<b>Pipes for pressure systems, Austenitic and ferritic-austenitic steel pipes, Piping fittings</b>
<b>Steel type</b>	<b>Carbon and carbon-manganese, Alloy, Austenitic stainless, See page 2</b>
<b>Manufacturing method</b>	<b>Cold formed</b>
<b>Max. outer diameter</b>	<b>219.1 mm</b>
<b>Max. wall thickness</b>	<b>13 mm</b>
<b>Heat treatment condition</b>	<b>See page 2</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 **2018-08-17**

for **DNV GL**

This Certificate is valid until **2021-01-31**.

DNV GL local station: **Essen**

Approval Engineer: **Christian Wildhagen**

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



Job Id: **263.11-006051-2**  
Certificate No: **AMMM00000Y1**  
Revision No: **2**

## Particulars of the approval

---

### Piping fittings

Steel type <sup>2)</sup>	Manufacturing method <sup>1)</sup>	Max. outer diameter [mm]	Max. wall thickness [mm]	Delivery condition
Carbon, Carbon-Manganese	CFS	219.1	13	acc. standard
Alloy	CFS	219.1	13	acc. standard
Austenitic	CFS	219.1	13	acc. standard

#### Remarks:

- 1) CFS: cold finished seamless
- 2) Certification of any material applied to classed object shall fulfill the applicable material requirements in the DNV GL class rules