

# APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No:  
**AMMM00000C9**  
Revision No:  
**1**

**This is to certify:**

That  
**Siekmann GmbH & Co. KG**  
**Fischerstrasse 4,**  
**32257 Bünde,**  
**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/Application area</b>	<b>Piping fittings</b>
<b>Steel type</b>	<b>Carbon and carbon-manganese, Austenitic stainless, Ferritic-austenitic (Duplex) stainless, See page 2</b>
<b>Manufacturing method</b>	<b>Seamless hot formed</b>
<b>Max. outer diameter</b>	<b>219.1 mm</b>
<b>Max. wall thickness</b>	<b>20 mm</b>
<b>Heat treatment condition</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 **2019-08-09**

for **DNV GL**

This Certificate is valid until **2022-02-10**.

DNV GL local station: **Magdeburg**

Approval Engineer: **Christian Wildhagen**

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



Job Id: **263.11-005571-2**  
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## Particulars of the approval

### Piping fittings

Steel type	Grade	Manufacturing method <sup>1)</sup>	Max. outer diameter [mm]	Max. wall thickness [mm]	Heat treatment condition <sup>2)</sup>
<b>Pipe fittings acc. EN 10253-2</b>					
C and C-Mn	P235TR2, P265TR2, P235GH, P265GH, 16Mo3, P355N, P355NH	HFS	219.1	20	N
<b>Pipe fittings made from pipes acc. EN 10216-3:</b>					
C and C-Mn	P355NL1, P355NL2	HFS	219.1	20	N
<b>Pipe fittings acc. EN 10253-4</b>					
Austenitic	1.4301, 1.4306, 1.4307, 1.4401, 1.4404, 1.4435, 1.4436, 1.4541, 1.4550, 1.4571	HFS	219.1	20	SHT
Duplex	1.4462	HFS	219.1	20	SHT
<b>Pipe fittings acc. ASTM A234</b>					
C and C-Mn	WPA, WPB, WPC, WP1	HFS	219.1	20	N
<b>Pipe fittings acc. ASTM A403</b>					
Austenitic	WP304, WP304L, WP316, WP316L, WP321, WP347	HFS	219.1	20	SHT
<b>Pipe fittings acc. ASTM A815</b>					
Duplex	WP S31803	HFS	219.1	20	SHT

#### Remarks:

- 1) HFS: hot finished seamless
- 2) N: Normalised  
SHT: Solution Heat Treated (solution annealing)