

# APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No:  
**AMMM00001ND**  
Revision No:  
**1**

## This is to certify:

That

**Busch + Kunz GmbH & Co. KG**  
**Carl-Benz-Str. 17-19, 57299 Burbach,**  
**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>Fittings</b>
<b>Application area</b>	<b>Piping fittings</b>
<b>Steel type</b>	<b>Carbon and carbon-manganese, Alloy, Austenitic stainless, See page 2</b>
<b>Manufacturing method</b>	<b>Hot formed / cold formed</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>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 **2020-09-01**

for **DNV GL**

This Certificate is valid until **2023-08-31**.

DNV GL local station: **Essen**

Approval Engineer: **Christian Wildhagen**

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

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Job Id: **263.11-007829-2**  
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## Particulars of the approval

### Piping fittings

Steel type	Standard <sup>3)</sup>	Manufacturing method <sup>1)</sup>	Max. outer diameter [mm]	Max. wall thickness [mm]	Delivery condition <sup>2)</sup>
C and C-Mn, Alloy	EN 10083	HF, CF	610	40	N, NT
	ISO 3183				
	EN 10216-1				
	EN 10216-2				
	EN 10216-3				
	EN 10216-4				
	EN 10222				
Austenitic stainless	EN 10217-7	HF, CF	323.9	12	SHT
	EN 10216-5				

Remarks:

- 1) HF: hot finished  
CF: cold finished
- 2) N: Normalised  
NT: Normalised and tempered  
SHT: Solution Heat Treated (solution annealing)
- 3) Starting material. Final pipe fittings to comply with the following recognized standards:  
EN 10253, ASTM A234, ASTM A403, ASTM A420, ASTM A744, ASTM A815, ASTM A960, ASTM A961, JIS B2312, JIS B2313 or JIS B2316.