

# APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No:  
**AMMM000037F**

This is to certify:

That

**Springer GmbH**  
Ringstraße 2, 99885 Ohrdruf,  
Germany

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

in accordance with

**DNV rules for classification – Ships**  
**DNV class programme – DNV-CP-0252 Steel pipes and steel pipe fittings**

and the following particulars:

<b>Product</b>	<b>Fittings (elbows, reducers, tees)</b>
<b>Application area</b>	<b>Piping fittings</b>
<b>Steel type</b>	<b>Austenitic stainless</b>
<b>Manufacturing method</b>	<b>Cold formed</b>
<b>Dimensions</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>

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 **2024-09-24**

This Certificate is valid until **2027-09-23**.

DNV local unit: **Hamburg – CMC North/East**

Approval Engineer: **Stefan Röhr**



for **DNV**

This document has been digitally signed and will  
therefore not have handwritten signature  
Christian Wildhagen

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

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### Piping fittings (elbows, reducers, tees)

Steel type <sup>3)</sup>	Manufacturing method <sup>1)</sup>	Dimensions	Max. wall thickness [mm]	Heat treatment condition <sup>2)</sup>
Austenitic stainless	CFS	½ " up to 12 "	10	SHT

#### Remarks:

- 1) CFS: Cold finished seamless (starting material: welded pipes/seamless pipes)
- 2) SHT: Solution Heat Treated (solution annealing)
- 3) Suitable pipe fittings shall be selected from the following recognized standards:  
EN 10253, ASTM A234, ASTM A403, ASTM A420, ASTM A774, ASTM A815, ASTM A960,  
ASTM A961, JIS B2312, JIS B2313 or JIS B2316.