



APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No:
AMMM00000JC
Revision No:
2

This is to certify:

That

Wieland Eucaro GmbH
Senator-Helmken-Str. 3, 28197 Bremen,
Germany

is an approved manufacturer of
Wrought Copper and Copper Alloys

in accordance with
DNV rules for classification – Ships

and the following particulars:

Application area	Copper and copper alloy fittings
Alloy type	Copper-Nickel
Manufacturing method	Seamless and welded fittings and flanges, TIG Welding
Max. outer diameter	See page 2
Max. wall thickness	See page 2
Remarks	See particulars of the approval

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 **2022-04-05**

for **DNV**

This Certificate is valid until **2025-03-31**.

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

Approval Engineer: **Christian Wildhagen**

Thorsten Lohmann
Head of Section

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.



Form code: AM 311

Revision: 2021-03

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Particulars of the approval

Copper and copper alloy fittings ¹⁾²⁾

Designation	Grade	Manufacturing method	Max. outer diameter [mm]	Max. wall thickness [mm]	Heat treatment condition
Copper-Nickel 90-10	CuNi10Fe1.6Mn	Seamless or welded	610	17	Acc. standard

Remarks:

- ¹⁾ Including flanges and fittings acc. DIN 86037-2, DIN 85004-2, DIN 86087, DIN 86088, DIN 86090, DIN 86089, EHN 9512, EHN 9511, EEMUA 234
- ²⁾ Including loose flanges and lapped pipe ends acc. DIN 86037, DIN 85387 and DIN 86038 with max. diameter 1200 mm