



# APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No:  
**AMMM00002HT**  
Revision No:  
**1**

This is to certify:

That

**CIG Piping Technology GmbH**  
**Zur Westpier 10,**  
**28755 Bremen,**  
**Germany**

is an approved manufacturer of  
**Pipe flanges and pipe tees**

in accordance with

**DNV rules for classification – Ships**  
**DNV class programme – DNV-CP-0346 DNV approval of manufacturer scheme**

and the following particulars:

<b>Product</b>	<b>Pipe flanges and pipe trees</b>
<b>Grade(s)</b>	<b>Austenitic stainless Copper-Nickel 90-10</b>
<b>Manufacturing method</b>	<b>T-Drill® process</b>
<b>Dimensions</b>	<b>See particulars of the approval</b>
<b>Additional approval conditions</b>	<b>See particulars of the approval</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 **2023-06-02**

for **DNV**

This Certificate is valid until **2026-05-26**.

DNV local unit: **Papenburg**

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.



## Particulars of the approval

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### Pipe flanges and pipe trees

Grade	Product	Max. outer diameter	Max wall thickness [mm]	Nominal pressure [bar]
CuNi10Fe1.6Mn (2.1972) <sup>1)</sup>	Tee 1:1 (collaring)	DN 150	6	133
	Pipe (flanging)	DN 150	6	133
	Flange acc. VG 85353	DN 150	6	133
	Flange acc. DIN 86038-1	DN 150	6	133

Remark:

<sup>1)</sup> Incl. equivalent grades in acc. to other standards

Special conditions:

- Dimensions acc. relevant standard
- Flanges and tees to be manufactured according to recognized procedures (T-Drill®)
- Weld area of tee to be free of cracks; grooves, scratches, notches or other surface flaws are to be properly removed
- Procedures for manufacturing of tees other than 1:1, the nominal diameter of branching pipe is to be one level/degree lower than initial pipe
- Initial pipes are to be purchased from DNV approved manufacturers
- For application of flanges and collars on seagoing ships the requirements for NDT and leak tightness testing of the DNV Rules for Ships, Part 4 apply