

APPROVAL OF MANUFACTURER CERTIFICATE

This is to certify:

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

is an approved manufacturer of
Pipe flanges and pipe trees

in accordance with
DNV GL rules for classification – Ships

and the following particulars:

Product	Pipe flanges and pipe trees
Grade(s)	Austenitic stainless Copper-Nickel 90-10
Manufacturing method	T-Drill® process
Dimensions	See particulars of the approval
Additional approval conditions	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 GL classed object shall fulfill the material requirements in the applicable DNV GL class rules.

Issued at **Hamburg** on **2019-07-18**

for **DNV GL**

This Certificate is valid until **2022-05-26**.

DNV GL local station: **Papenburg**

Approval Engineer: **Christian Wildhagen**

Thorsten Lohmann
Head of Section



Particulars of the approval

Pipe flanges and pipe trees

Grade	Product	Max. outer diameter	Max wall thickness [mm]	Nominal pressure [bar]
CuNi10Fe1.6Mn (2.1972) ¹⁾	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:

¹⁾ Incl. equivalent grades in acc. to other standards

Special conditions:

- Dimensions acc. relevant standard
- Flanges and tees to be manufactured according 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 GL approved manufacturers
- For application of flanges and collars on seagoing ships the requirements for NDT and leak tightness testing of the DNV GL Rules for Ships, Part 4 apply