



APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No:
AMMM000008X
Revision No:
2

This is to certify:

That

Heinz Gothe GmbH & Co. KG
Druckerstraße 12-20, 41238 Mönchengladbach,
Germany

is an approved manufacturer of
Steel Pipes and Fittings

in accordance with
DNV GL rules for classification – Ships

and the following particulars:

Product	Pipes and fittings
Application area	Austenitic and ferritic-austenitic steel pipes, Piping fittings
Steel type	Austenitic stainless, Ferritic-austenitic (Duplex) stainless, Nickel-base alloys See page 2
Manufacturing method	Longitudinal fusion welding
Max. outer diameter	See page 2
Max. wall thickness	See page 2
Heat treatment condition	See page 2

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 **2021-11-09**

for **DNV**

This Certificate is valid until **2024-10-31**.

DNV local station: **Essen**

Approval Engineer: **Christian Wildhagen**

Thorsten Lohmann
Head of Section

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Particulars of the approval

Pipes

Steel type	Manufacturing method ¹⁾	Max. outer diameter [mm]	Max. wall thickness [mm]	Heat treatment condition ²⁾
Austenitic stainless ³⁾	EFW	2 000	50	SHT or AW
22Cr-duplex ³⁾	EFW	2 000	50	SHT or AW
Ni-base alloy ⁵⁾	EFW	2 000	40	SHT or AW

Piping fittings

Steel type	Manufacturing method ¹⁾	Max. outer diameter [mm]	Max. wall thickness [mm]	Heat treatment condition ²⁾
Austenitic stainless ⁴⁾	EFW	2 000	50	SHT or AW
22Cr-duplex ⁴⁾	EFW	2 000	50	SHT or AW
Ni-base alloy ⁵⁾	EFW	2 000	40	SHT or AW

Remarks:

- 1) EFW: electric fusion welded
- 2) SHT: solution heat treated (solution annealing)
AW: as welded
- 3) Austenitic and ferritic-austenitic steel pipes acc. recognised standards, e.g. ISO 9329 Part 4, ISO 9330 Part 6, EN 10216 Part 5, EN 10217 Part 7, ASTM A269, ASTM A312, ASTM A358, ASTM A789, ASTM A790, ASTM A928 or JIS G3459
- 4) Piping fitting acc. recognised standards, e.g. EN 10253, ASTM A403, ASTM A774, ASTM A815, ASTM A960, ASTM A961, JIS B2312, JIS B2313 or JIS B2316.
- 5) Nickel-base alloys acc. recognised standards, e.g. ASTM A619, DIN 17751