

APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No: **AMMM000013Z** Revision No:

This is to certify:

That

Fondinox S.p.A.

SVia Marconi, 42/48 26010 Sergnano CR, Italy

is an approved manufacturer of **Steel Castings**

in accordance with

DNV rules for classification – Ships

DNV-OS-B101 – Metallic materials

and the following particulars:

Application area Stainless steel castings

Nickel base alloy castings

Material type Austenitic stainless,

Ferritic-austenitic (Duplex) stainless

Nickel Alloy

Casting method See page 2
Max. weight 2 000 kg
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 2022-12-08

for **DNV**

This Certificate is valid until **2025-12-31**. DNV local unit: **Italy/Malta CMC**

Approval Engineer: Andreas Koch

Thorsten Lohmann
Head of Section

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263.11-005943-6 Job Id: Certificate No: AMMM000013Z

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Particulars of the approval

Stainless steel castings

Steel type	Grade ³⁾	Casting method 1)	Max. weight [kg]	Max. wall thickness [mm]	Heat treatment condition ²⁾
Austenitic	GX 2 CrNi 18 10 (304L) GX 5 CrNi 19 9 (304) GX 6 CrNiNb 19 10 (347) GX 2 CrNiMo 19 11 2 (316L) GX 5 CrNiMo 19 11 2 (316) GX 5 CrNiMo 19 11 3 (317)	SC, CC	2 000	65	SHT
Ferritic- austenitic	GX 2 CrNiMoN 22 5 3 GX 2 CrNiMoCuN 25 6 3 3	SC, CC	2 000	105	SHT

Nickel base alloy castings

Туре	Grade ⁴⁾	Casting method 1)	Max. weight [kg]	Max. wall thickness [mm]	Heat treatment condition
Ni-Alloy	ASTM A494 Grade CX2MW	SC, CC	2 000	105	acc. to standard

Remarks:

1) SC: Sand Casting

- CC: Centrifugal casting
 SHT: Solution Heat Treated (Solution Annealing)
 Incl. equivalent grades in acc. to other standards 2)
- Possible application and certification is subject to case by case approval based on DNV approved drawing

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