

APPROVAL OF MANUFACTURER CERTIFICATE

This is to certify:

That

FONDERIA AUGUSTA S.r.l.

Via Landri, 1 e/f – 24060 Costa di Mezzate BG, Italy

is an approved manufacturer of
Steel Castings

in accordance with
DNV GL rules for classification – Ships

and the following particulars:

Application area	Castings for boilers, pressure vessels and piping systems, Stainless steel castings
Steel type	Carbon and carbon-manganese, Alloy, Austenitic stainless, Ferritic-austenitic (Duplex) stainless, Martensitic stainless
Casting method	Sand casting
Max. weight	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 GL classed object shall fulfill the material requirements in the applicable DNV GL class rules.

Issued at **Hamburg** on **2021-02-10**

for **DNV GL**

This Certificate is valid until **2024-02-09**.

DNV GL local station: **Milan**

Approval Engineer: **Stefan Röhr**

Thorsten Lohmann
Head of Section

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Particulars of the approval

Castings for boilers, pressure vessels and piping systems

Steel type	Grade ³⁾	Casting method ¹⁾	Max. weight [kg]	Max. thickness [mm]	Heat treatment condition ²⁾
C and C-Mn	VL C450H, VL C490H	SC	300	50	N, NT, QT
Alloy	VL C0.5Mo, VL C1Cr0.5Mo, VL C2.25Cr1Mo	SC	300	50	QT

Stainless steel castings

Steel type	Casting method ¹⁾	Max. weight [kg]	Max. wall thickness [mm]	Heat treatment condition ²⁾
Austenitic	SC	300	50	SHT
Martensitic ⁴⁾ ⁵⁾	SC	300	50	QT
22 Cr Duplex	SC	300	50	SHT
25 Cr Duplex	SC	300	50	SHT

Steel castings acc. other standards

Steel type /grade	Casting method ¹⁾	Max. weight [kg]	Max. wall thickness [mm]	Heat treatment condition ²⁾
ASTM A216 grades WCA, WCB	SC	300	50	N, NT, QT
ASTM A217 grades WC6, WC9	SC	300	50	N, NT, QT
EN 10213-2 grades GP240GH, P280GH	SC	300	50	N, QT
ASTM A217 grade C12A ⁵⁾	SC	300	50	NT
ASTM A352 grade LC2 ⁵⁾	SC	300	50	N, NT, QT

Remarks:

- 1) SC: Sand Casting
- 2) SHT: Solution Heat Treated (Solution Annealing)
N: Normalized
QT: Quenched and tempered
NT: Normalized and tempered
- 3) Incl. equivalent grades in acc. to other standards
- 4) ASTM A487 grade CA6NM
- 5) Possible application and certification of any material to classed object is subject to case by case approval