

APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No:
AMMM00000SG
Revision No:
1

This is to certify:

That

F.LLI GANDOSI ACCIAIERIE ELETTRICHE S.P.A.
Nembro 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 hull structures and equipment Casting for machinery Castings for boilers, pressure vessels and piping systems
Steel type(s)	Stainless steel castings Carbon, Carbon-Manganese, Austenitic Stainless
Max. weight	See page 2
Casting method	See page 2
Max. weight	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 **2018-07-16**

for **DNV GL**

This Certificate is valid until **2021-07-31**.

DNV GL local station: **Milan**

Approval Engineer: **Stefan Röhr**

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Thorsten Lohmann
Head of Section



Job Id: **263.11-003116-3**
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Particulars of the approval

Castings for hull structure and equipment

Steel type	Grade ^{3) 4)}	Casting method ¹⁾	Max. weight [kg]	Delivery condition ²⁾
C and C-Mn	VL C400UW, VL C440UW, VL C480UW, VL C520UW, VL C560UW, VL C600UW	SC	8 500	N, NT, QT

Castings for machinery

Steel type	Grade ^{3) 4)}	Casting method ¹⁾	Max. weight [kg]	Delivery condition ²⁾
C and C-Mn	VL C400U, VL C440U, VL C480U, VL C520U, VL C560U, VL C600U	SC	8 500	N, NT, QT

Castings for boilers, pressure vessels and piping systems

Steel type	Grade ^{3) 4)}	Casting method ¹⁾	Max. weight [kg]	Delivery condition ²⁾
C and C-Mn	VL C450H, VL C490H	SC	8 500	N, NT, QT

Stainless steel castings

Steel type	Grade ^{3) 4)}	Casting method ¹⁾	Max. weight [kg]	Delivery condition ²⁾
Austenitic Stainless	GX 2 CrNi 18 10 (304L) GX 5 CrNi 19 9 (304) GX 2 CrNiMo 19 11 2 (316L) GX 5 CrNiMo 19 11 2 (316)	SC	850	SHT

Remarks:

- 1) SC: Sand Casting
- 2) N: Normalized; NT: Normalized and Tempered; QT: Quenched and Tempered
SHT: Solution Heat Treated (Solution Annealing)
- 3) Certification of any material applied to classed object shall fulfill the applicable material requirements in the DNV GL class rules
- 4) Incl. equivalent grades in acc. to other standards

Additional approval conditions:

Including austenitic stainless steel for low temperature service