

APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No:
AMMM000029M
Revision No:
1

This is to certify:

That

Van Voorden Gieterijen B.V.
Bossekamp 6, 5301 LZ Zaltbommel,
Netherlands

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, Castings for machinery, Stainless steel castings
Steel type	Carbon and carbon-manganese, Alloy, Austenitic stainless, Ferritic-austenitic (Duplex) stainless, Martensitic stainless
Casting method	See page 2
Max. weight	20 000 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 GL classed object shall fulfill the material requirements in the applicable DNV GL class rules.

Issued at **Hamburg** on **2020-11-25**

for **DNV GL**

This Certificate is valid until **2022-06-30**.

DNV GL local station: **Netherlands**

Approval Engineer: **Andreas Koch**

Thorsten Lohmann
Head of Section

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV GL AS, its parent companies and subsidiaries as well as their officers, directors and employees ("DNV GL") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



Job Id: **263.11-009100-3**
 Certificate No: **AMMM000029M**
 Revision No: **1**

Particulars of the approval

Castings for hull structure and equipment

Steel type	Grade ³⁾	Casting method ¹⁾	Max. weight [kg]	Max. wall thickness [mm]	Heat treatment condition ²⁾
C and C-Mn	VL C400UW, VL C440UW, VL C480UW	SC	20 000	500	N, NT, QT
Alloy	VL C550AW, VL C600AW	SC	20 000	500	QT

Castings for machinery

Steel type	Grade ³⁾	Casting method ¹⁾	Max. weight [kg]	Max. wall thickness [mm]	Heat treatment condition ²⁾
C and C-Mn	VL C400U, VL C440U, VL C480U, VL C520U	SC	20 000	500	N, NT, QT
Alloy	VL C550A, VL C600A, VL C690A	SC	20 000	500	QT

Stainless steel castings

Steel type ³⁾	Casting method ¹⁾	Max. weight [kg]	Max. wall thickness [mm]	Heat treatment condition ²⁾
Martensitic	SC	20 000		QT
Austenitic	SC	20 000		SHT
22 Cr Duplex	SC	20 000		SHT
25 Cr Duplex	SC	20 000		SHT

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