



APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No:
AMMM00002U6
Revision No:
1

This is to certify:

That

DELTA TECHNOCAST PVT. LTD.
Plot No. G-1066, Lodhika Industrial Estate, G.I.D.C,
Metoda, Disct. - Rajkot 360025, Gujarat,
India

is an approved manufacturer of
Steel Castings

in accordance with
DNV rules for classification – Ships
DNV-OS-B101 – Metallic materials
DNV class programme – DNV-CP-0246 Steel castings

and the following particulars:

Application area	Castings for hull structures and equipment, Castings for machinery, Castings for boilers, pressure vessels and piping systems, Ferritic steel castings for low temperature service, Stainless steel castings
Steel type	Carbon and carbon-manganese, Alloy, Austenitic stainless, Ferritic-austenitic (Duplex) stainless, See page 2
Casting method	Investment casting
Max. weight	See page 2
Max. wall thickness	See page 2
Heat treatment condition	See page 2
Additional approval conditions	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 **2024-03-08**

This Certificate is valid until **2027-01-19**.

for **DNV**

DNV local unit: **Mumbai NB & CMC**

Approval Engineer: **Christian Wildhagen**

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") 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.



Particulars of the approval

Castings for hull structure and equipment

Steel type	Grade ³⁾	Casting method ¹⁾	Max. weight [kg]	Max. section / wall thickness [mm]	Heat treatment condition ²⁾
C and C-Mn	NV C400UW, NV C440UW, NV C480UW, NV C520UW	IC	120	75	QT

Castings for machinery

Steel type	Grade ³⁾	Casting method ¹⁾	Max. weight [kg]	Max. section / wall thickness [mm]	Heat treatment condition ²⁾
C and C-Mn	NV C400U, NV C440U, NV C480U, NV C520U	IC	120	75	QT

Castings for boilers, pressure vessels and piping systems

Steel type	Grade ³⁾	Casting method ¹⁾	Max. weight [kg]	Max. section / wall thickness [mm]	Heat treatment condition ²⁾
C and C-Mn	NV C450H, NV C490H	IC	120	75	QT

Ferritic steel castings for low temperature service⁴⁾

Steel type	Grade ³⁾	Casting method ¹⁾	Max. weight [kg]	Max. section / wall thickness [mm]	Heat treatment condition ²⁾
C and C-Mn	NV C450L, NV C490L	IC	120	75	QT

Stainless steel castings

Steel type	Grade ³⁾	Casting method ¹⁾	Max. weight [kg]	Max. section / wall thickness [mm]	Heat treatment condition ²⁾
Austenitic	GX 2 CrNi 18 10 (304L) GX 2 CrNiMo 19 11 2 (316L) GX 5 CrNiMo 19 11 2 (316) GX 5 CrNiMo 19 11 3 (317)	IC	120	75	SHT
Ferritic-austenitic	GX 2 CrNiMoN 22 5 3 GX 2 CrNiMoCuN 25 6 3 3	IC	120	75	SHT

Remarks:

- 1) IC: Investment Casting
- 2) SHT: Solution Heat Treated (Solution Annealing)
QT: Quenched and tempered
- 3) Incl. equivalent grades in acc. to other standards
- 4) Qualified test temperature -46°C

Special conditions:

Including austenitic stainless steel for approved low-temperature applications