

APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No:
AMMM0000DD
Revision No:
1

This is to certify:

That

Sanjivani Casting Pvt. Ltd.
Survey No. 164, Gondal, NH-27, SIDC Road,
Veraval (Shapar), Tal - Kotda Sangami,
Rajkot - 360024, Gujarat, India

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 Ferritic steel castings for low temperature service Stainless steel castings
Steel type	Carbon and carbon-manganese, Austenitic stainless
Casting method	Investment (lost wax) casting
Max. weight	60 kg
Max. wall thickness	50 mm
Heat treatment condition	Normalized, solution heat treated, 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 GL classed object shall fulfill the material requirements in the applicable DNV GL class rules.

Issued at **Hamburg** on **2019-01-25**

for **DNV GL**

This Certificate is valid until **2022-01-31**.

DNV GL local station: **Mumbai**

Approval Engineer: **Christian Wildhagen**

Thorsten Lohmann
Head of Section



Job Id: **263.11-005678-2**
 Certificate No: **AMMM00000DD**
 Revision No: **1**

Particulars of the approval

Castings for boilers, pressure vessels and piping systems

Steel type	Grade ³⁾⁴⁾	Casting method ¹⁾	Max. weight [kg]	Max. wall thickness [mm]	Heat treatment condition ²⁾
C and C-Mn	VL C450H, VL C490H	IC	60	50	N, NT
Castings acc. EN 10213					
C and C-Mn	GP240GH, GP280GH	IC	60	50	N
Castings acc. ASTM A216					
C and C-Mn	WCB, WCC	IC	60	50	N, NT

Ferritic steel castings for low temperature service

Steel type	Grade ³⁾⁴⁾	Casting method ¹⁾	Max. weight [kg]	Max. wall thickness [mm]	Heat treatment condition ²⁾
C and C-Mn	C450L, C490L	IC	60	50	N, QT
Castings acc. EN 10213					
C and C-Mn	G20Mn5	IC	60	50	N
Castings acc. ASTM A352					
C and C-Mn	LCB, LCC	IC	60	50	N, QT

Stainless steel castings

Steel type	Grade ³⁾⁴⁾	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)	IC	60	50	SHT
Castings acc. EN 10213					
Austenitic	1.4308, 1.4309, 1.4408, 1.4409, 1.4552, 1.4581	IC	60	50	SHT
Castings acc. ASTM A351					
Austenitic	CF10, CF10M, CF3	IC	60	50	SHT

Remarks:

Job Id: **263.11-005678-2**
Certificate No: **AMMM00000DD**
Revision No: **1**

- 1) IC: Investment Casting
- 2) SHT: Solution Heat Treated (Solution Annealing)
N: Normalised
NT: Normalised and tempered
QT: Quenched and tempered
- 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