



# APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No:  
**AMMM0000206**  
Revision No:  
**1**

This is to certify:

That

**Vulkan Technologies Pvt. Limited**  
**District Pune, Maharashtra, India**

is an approved manufacturer of  
**Aluminium Alloy Castings**

in accordance with  
**DNV GL rules for classification – Ships**

and the following particulars:

<b>Application area</b>	<b>Aluminium Casting Alloys</b>
<b>Alloy(s)</b>	<b>See page 2</b>
<b>Manufacturing method</b>	<b>Sand casting, Permanent mold casting, see page 2</b>
<b>Max. weight</b>	<b>See page 2</b>
<b>Max. wall thickness</b>	<b>See page 2</b>
<b>Heat treatment condition</b>	<b>See page 2</b>

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 **2021-03-16**

for **DNV**

This Certificate is valid until **2024-01-31**.

DNV local station: **Mumbai**

Approval Engineer: **Stefan Röhr**

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**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 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.



Form code: AM 311

Revision: 2021-03

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## Particulars of the approval

### Aluminium Casting Alloys

Grade	Casting method <sup>1)</sup>	Max. weight [kg]	Max. wall thickness [mm]	Heat treatment condition <sup>2)</sup>
EN AC-42000	SC	20	100	AC, T6
EN AC-42000	PM	20	100	AC, T6, T64
EN AC-42100	SC	20	100	T6
EN AC-42100	PM	20	100	T6, T64
EN AC-42200	SC	20	100	T6
EN AC-42200	PM	20	100	T6, T64
EN AC-43000	SC	20	100	AC, T6
EN AC-43000	PM	60	100	AC, T6, T64
EN AC-43100	SC	60	100	AC, T6
EN AC-43100	PM	60	100	AC, T6, T64
EN AC-43200	SC, PM	60	100	AC, T6
EN AC-43300	SC	60	100	T6
EN AC-43300	PM	60	100	T6, T64
EN AC-44000	SC, PM	50	30	AC
EN AC-44100	SC, PM	50	30	AC
EN AC-44200	SC, PM	50	30	AC
EN AC-44400	SC, PM	50	30	AC

Remarks:

- 1) SC: Sand casting  
 PM: Permanent mould casting
- 2) AC: As cast  
 T6: Solution annealed and completely artificially aged  
 T64: Solution annealed and not completely artificially aged under aged (PM)