

APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No:
AMMM0000071
Revision No:
1

This is to certify:

That
**Mittelrheinische Metallgießerei
Heinrich Beyer GmbH & Co. KG
Koblenzerstraße 69
Andernach, Germany**

is an approved manufacturer of
Copper Alloy Castings

in accordance with
DNV GL rules for classification – Ships

and the following particulars:

Application area	Castings for valves, fittings and general application
Alloy type	Phosphor bronze Leaded gunmetal Leaded Bronze Al-bronze
Manufacturing method	See page 2
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 GL classed object shall fulfill the material requirements in the applicable DNV GL class rules.

Issued at **Hamburg** on **2018-11-06**

for **DNV GL**

This Certificate is valid until **2021-11-12**.

DNV GL local station: **Essen**

Approval Engineer: **Torben Schälicke**

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Thorsten Lohmann
Head of Section



Job Id: **263.11-005363-2**
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Particulars of the approval

Castings for valves, fittings and general application

Alloy type ³⁾	Casting method ¹⁾	Max. weight [kg]	Max. section / wall thickness [mm]	Heat treatment condition ²⁾
Phosphor bronze	CC	4 380	457	AC
Leaded gunmetal	CC	4 380	457	AC
Leaded bronze	CC	4 380	457	AC
Al-bronze	CC	4 380	457	AC

Remarks:

- 1) CC: Continuous casting / centrifugal casting
- 2) AC: As cast
- 3) Certification of any material applied to classed object shall fulfil the applicable material requirements in the DNV GL class rules