

APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No:
AMMM00000T3
Revision No:
1

This is to certify:

That
Dillenberg GmbH & Co. KG
Düsseldorf, Germany

is an approved manufacturer of
Copper Alloy Castings

in accordance with
DNV GL rules for classification – Ships
DNV GL offshore standards

and the following particulars:

Application area	Castings for valves, fittings and general application
Alloy type	Al-bronze, Sn-bronze, Pb-Sn-bronze, Mn-bronze
Manufacturing method	See page 2
Max. weight	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 **2019-04-15**

for **DNV GL**

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

DNV GL local station: **Essen**

Approval Engineer: **Stefan Röhr**

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Thorsten Lohmann
Head of Section



Job Id: **263.11-003390-3**
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Particulars of the approval

Castings for valves, fittings and general application

Alloy type / grade	Casting method ¹⁾	Max. weight [kg]	Heat treatment condition ²⁾
Al-bronze	SC, CC	1 800	AC
Sn-Bronze	SC, CC	1 800	AC
Pb-Sn bronze	SC, CC	1 800	AC
Mn-bronze	SC, CC	1 800	AC

Remarks:

- 1) SC: Sand Casting; CC: Centrifugal Casting
- 2) AC: As cast