

# APPROVAL OF MANUFACTURER CERTIFICATE

## This is to certify:

That

**Maatmetaal Rotterdam B.V.**  
**Terbregseweg 173, 3056 JV Rotterdam,**  
**Netherlands**

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

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

and the following particulars:

<b>Application area</b>	<b>Castings for valves, fittings and general application</b>
<b>Alloy type</b>	<b>Sn-bronze</b>
<b>Manufacturing method</b>	<b>Centrifugal casting</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>As cast</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 GL classed object shall fulfill the material requirements in the applicable DNV GL class rules.

Issued at **Hamburg** on **2019-12-18**

for **DNV GL**

This Certificate is valid until **2020-12-31**.

DNV GL local station: **Rotterdam**

Approval Engineer: **Enno Brück**

**Thorsten Lohmann**  
**Head of Section**



Job Id: **263.11-004278-2**  
Certificate No: **AMMM00002MW**

## Particulars of the approval

---

### Castings for valves, fittings and general application

Alloy type <sup>3)</sup>	Casting method <sup>1)</sup>	Max. weight [kg]	Heat treatment condition <sup>2)</sup>
Sn-bronze	CC	2 000	AC

Remarks:

- 1) CC: Centrifugal casting
- 2) AC: As cast
- 3) Incl. equivalent grades in acc. to other standards