

APPROVAL OF MANUFACTURER CERTIFICATE

This is to certify:**That****Non Ferro Gieterij "Oldenzaal" b.v.
Oldenzaal Overijssel, Netherlands**is an approved manufacturer of
Copper Alloy Castingsin accordance with
DNV GL rules for classification – Ships

and the following particulars:

Application area Alloy type(s)	Castings for valves, fittings and general application Sn-bronze PbSn-bronze Al-bronze Ni-Al-bronze (Cu3) Mn-Al-bronze (Cu4) See particulars
Max. weight Remarks	Weld repairs are not acceptable.

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 **2017-12-08**for **DNV GL**This Certificate is valid until **2021-06-30**.DNV GL local station: **Rotterdam**Approval Engineer: **Andreas Koch**

**Thorsten Lohmann
Head of Section**

Job Id: **263.11-008342-1**
Certificate No: **AMMM00001UY**

Particulars of the approval

Castings for valves, fittings and general application

Alloy type	Grade ³⁾	Casting method ¹⁾	Max. weight [kg]	Delivery condition ²⁾
Sn-bronze		SC	5 000	AC
PbSn-bronze		SC	5 000	AC
Al-bronze		SC	5 000	AC
Ni-Al-bronze	VL Cu3	SC	5 000	AC
Mn-Al-bronze	VL Cu4	SC	5 000	AC

Remarks:

- 1) SC: Sand Casting
- 2) AC: As cast
- 3) Certification of any material applied to classed object shall fulfill the applicable material requirements in the DNV GL class rules