

APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No:
AMMM00001KS
Revision No:
1**This is to certify:****That****Göpfert AG****Industriestraße, 25795 Weddingstedt,
Germany**is an approved manufacturer of
Copper Alloy Castingsin accordance with
DNV GL rules for classification – Ships

and the following particulars:

Application area	Castings for valves, fittings and general application
Alloy type	Al-bronze, Sn-bronze, Pb-Sn-bronze, see page 2
Manufacturing method	Sand casting
Max. weight	See page 2
Max. wall thickness	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 **2020-07-10**This Certificate is valid until **2023-06-30**.DNV GL local station: **Hamburg**Approval Engineer: **Christian Wildhagen**for **DNV GL**

Digitally Signed By: Roehr, Stefan

Location: DNV GL Hamburg, Germany

Signing Date: 10.07.2020 , on behalf of

Thorsten Lohmann
Head of Section

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Job Id: **263.11-007660-2**
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Particulars of the approval

Castings for valves, fittings and general application

Alloy type	Grade ²⁾	Casting method ¹⁾	Max. weight [kg]	Max. section / wall thickness [mm]	Heat treatment condition ²⁾
Sn-bronze	CuSn10Zn acc. DIN 1705	SC	500	100	AC
	CuSn10-C acc. EN 1982	SC	500	100	AC
Pb-Sn-bronze	CuSn5Zn5Pb5-C acc. EN 1982	SC	500	100	AC
	CuSn5Zn5Pb2-C acc. EN 1982	SC	500	100	AC
Al-bronze	CuAl10Fe5Ni5-C acc. EN 1982	SC	500	100	AC
	CuAlNi7 acc. WL 2.0968	SC	500	100	AC

Remarks:

¹⁾ SC: Sand Casting

²⁾ AC: As Cast