

APPROVAL OF MANUFACTURER CERTIFICATE

This is to certify:

That

Eliche Radice S.P.A.
Cinisello Balsamo MI, Italy

is an approved manufacturer of
Copper Alloy Castings

in accordance with
DNV GL rules for classification – Ships

and the following particulars:

Alloy type(s)	Mn-bronze, Mn-Ni-bronze, Ni-Al-bronze
Max. weight	1500 kg
Remarks	Including propeller castings, see particulars of the approval

Manufacturer(s) approved by this certificate is/are accepted to deliver according to DNV GL, DNV and GL rules.

This Certificate is valid until **2019-04-30**.

Issued at **Hamburg** on **2016-06-17**

DNV GL local station: **Milan**

Approval Engineer: **Christian Wildhagen**

for **DNV GL**

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Thorsten Lohmann
Head of Section

Job Id: **263.11-006039-1**
Certificate No: **AMMM00000NE**

Particulars of the approval

Cast copper alloys:

Alloy type	Grade	Supply condition	Casting Method	Thickness [mm], max.	Weight [kg], max.
Mn-bronze	VL Cu1	AC	SC	130	1500
Ni-Al-bronze	VL Cu2	AC	SC	130	1500
Ni-Al-bronze	VL Cu3	AC	SC	130	1500
"Mibral" according Radice spec. SQ4 Ed.4/2008	VL Cu3	AC	SC	130	1500
"Otman" according Radice spec. SQ5 Ed.3/2007	VL Cu1 VL Cu2	AC	SC	130	1500

AC: as cast SC: sand casting