



**CERTIFICATE OF APPROVAL OF MANUFACTURERS OF
MATERIALS**
No. **FAB164320XT/003**

This is to certify that the manufacture of the product identified below is in compliance with the applicable requirements of the RINA Rules for the Approval of Manufacturers of Materials.

<i>Description</i>	Castings
<i>Type</i>	Copper Alloy Casting
<i>Manufacturer</i>	DIKKAN METAL ÜRÜNLERİ SAN.TIC. A.S.
<i>Place of manufacture</i>	KEMALPASA ASFALTI NO:30 HAYITLIKIR MEVKII ULUCAK KÖYÜ, KEMALPASA,IZMIR TURKEY
<i>Reference standards</i>	RINA Rules for the approval of manufacturers of materials

Issued in **ISTANBUL** on **January 27, 2021**. *This Certificate is valid until* **January 26, 2026**



Volkan Kaya
Marine Surveyor
RINA Istanbul
28462

RINA Services S.p.A.
Volkan Kaya

This certificate consists of this page and 1 enclosure

CERTIFICATE OF APPROVAL OF MANUFACTURERS OF MATERIALSNo. **FAB164320XT/003****Enclosure - Page 1 of 1****Copper Alloy Casting****APPROVAL CONDITIONS****Product Description:** Copper Alloy Casting

	Alloy Type	Designation	Tonnes Max.
Long Freezing Range Alloys	Phosphor bronze	CuSn10PbP	2.00
		CuSn10	2.00
		CuSn11P	2.00
		CuSn12	2.00
	Gun Metal	CuSn10Zn2	2.00
	Leaded Gun Metal	CuSn5Pb5Zn5	2.00
		CuSn7Pb3Zn3	2.00
	Leaded bronze	CuSn10Pb10	2.00
		CuSn5Pb9	2.00
		CuSn9Pb15	2.00
		CuSn5Pb20	2.00
Short Freezing Range Alloys	Copper %30 Nickel	CuNi30Cr	2.00
		CuNi30Nb	2.00
	Copper %10 Nickel	CuNi10Nb	2.00
	Aluminium Bronze	CuAl10Fe5Ni5	2.00
		CuAl11Fe6Ni6	2.00

Casting Weight: 2000 kg.**Casting method :** Sand Casting and Centrifugal Casting**Delivery condition :** No Heat Treatment

Survey conditions: all castings to be used for construction of ships classed with RINA are to be in compliance with the requirements of the RINA Rules and are to be tested accordingly.

General conditions for the approval

-The approval is granted on condition that the RINA Rules for the approval, manufacture, testing and certification of materials are complied with in all respects.

-RINA is to be notified of any change of materials, manufacturing process, quality control routines that may affect the validity of this certificate.

ISTANBUL 27/01/2021