



**CERTIFICATE OF APPROVAL OF MANUFACTURERS OF
MATERIALS**

No. 2019 XI 01 236

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>	Seamless steel tubes and pipes in austenitic and austenitic-ferritic (duplex) stainless steel and super duplex stainless steel
<i>Type</i>	Grades 304, 304L, 316, 316L, 321, 321H, 347, 347H, 316 Ti, UNS S31803/ S32205, UNS S31500 & UNS S32750
<i>Applicant</i>	TUBACEX TUBES AND PIPES PRIVATE LIMITED SURVEY NO.131/1, UMBERGAON SANJAN ROAD, UMBERGAON 396171, DISTRICT VALSAD, GUJARAT, INDIA
<i>Manufacturer</i>	TUBACEX TUBES AND PIPES PRIVATE LIMITED
<i>Reference standards</i>	RINA Rules for the approval of manufacturers of materials

Issued in **RINA India Marine** on **June 7, 2022**. *This Certificate is valid until* **July 8, 2024**



RINA Services S.p.A.

Maung Yin Htwe Maung Yin Htwe



**Maung Yin Htwe
Marine Surveyor
RINA Singapore
4126**

This certificate consists of this page and 1 enclosure



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Grades 304, 304L, 316, 316L, 321, 321H, 347, 347H, 316Ti, UNS S31803/ S32205, UNS S31500, UNS S32750

APPROVAL CONDITIONS

Size range

Outside diameter: 6 mm to 219.10 mm Wall Thickness: 1.0 mm to 12.70 mm

Manufacturing process: Hollow pipes made by Hot Piercing from round bars and cold finish pipes & tubes by Cold drawing/Cold Pilgering.

Heat treatment:

Solution Annealing to minimum temperatures as below for various grades and quenching by cooling rapidly with water or Air

Grades

304, 304 L, 316, 316 L, 321, 321H, 347, 347H & 316Ti
UNS S31803/S32205, UNS S31500 & UNS S32750

Minimum Temperature

1040 deg. C

1100 deg. C

Survey conditions:

The Seamless pipes & tubes are to be in compliance in all respects with the requirements specified in Part D, Ch-2, Sec-2 of the RINA Rules and are to be tested accordingly.