



**CERTIFICATE OF APPROVAL OF MANUFACTURERS OF  
MATERIALS**  
No. **FAB009417XR/001**

**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>	<b>Seamless steel pipes and tubes</b>
<i>Type</i>	<b>Carbon and Carbon-Manganese seamless steel and low alloy steel</b>
<i>Applicant</i>	<b>TMK-ARTROM SRL STR. DRAGANESTI 30 Slatina (Olt) ROMANIA</b>
<i>Manufacturer</i>	<b>TMK-ARTROM SRL</b>
<i>Place of manufacture</i>	<b>STR. DRAGANESTI 30 Slatina (Olt) ROMANIA</b>
<i>Reference standards</i>	<b>RINA Rules for the approval of manufacturers of materials</b>

Issued in **CONSTANTA** on **August 30, 2017**. This Certificate is valid until **August 22, 2022**



**RINA Services S.p.A.**  
**Marius Fugaru**

This certificate consists of this page and 1 enclosure



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**Carbon and Carbon-Manganese seamless steel and low alloy steel**

**APPROVAL CONDITIONS**

**- Seamless pipes and tubes in carbon and carbon-manganese steel as follow:**

- Grades 320HA; 360HA; 360HB; 410HB; 410HD; 460HB; 460HD (as per RINA Rules, PtD, Ch2, Sec2)

- Maximum outside diameter 250 mm

- Maximum wall thickness 60 mm

**- Seamless pipes and tubes in low alloy steel as follow:**

- Grades 0.3Mo; 0.5Cr0.5Mo; 1Cr0.5Mo; 2.25Cr1Mo; 0.5Cr0.5Mo0.25V (as per RINA Rules, PtD, Ch2, Sec2)

- Maximum outside diameter 244.5 mm

- Maximum wall thickness 30 mm

**- Manufacturing process:** Cold rolled and Hot rolled;

**- Delivery condition:** Normalizing;

**- Survey conditions:** The products are to be in compliance in all respects with the relevant RINA Rules and are to be tested accordingly.

**- Remarks:** Including automatic non-destructive testing UT and ET in lieu of hydraulic testing according with relevant piping standard.

**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.

**CONSTANTA August 30, 2017**