




**CERTIFICATE OF APPROVAL OF MANUFACTURERS OF  
MATERIALS**  
No. FAB021816XG

**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 tubes and pipes in austenitic and austenitic-ferritic (duplex) stainless steel</b>
<i>Type</i>	<b>Martensitic stainless steels, Austenitic stainless steels Duplex (22Cr)- and Super-Duplex (25Cr) stainless steels</b>
<i>Applicant</i>	<b>Kuhn Edelstahl Otto-Hahn-Str. 4 42477 Redevormwald Germany</b>
<i>Reference standards</i>	<b>RINA Rules for the approval of manufacturers of materials</b>

Issued in **HAMBURG** on **March 4, 2016**. This Certificate is valid until **February 22, 2021**



  
**RINA**  
H. Brunk

Dr. H. Brunk

RINA Services S.p.A.

This certificate consists of this page and 1 enclosure



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**Martensitic stainless steels, Austenitic stainless steels  
Duplex (22Cr)- and Super-Duplex (25Cr) stainless steels**

**APPROVAL CONDITIONS**

**Size range**

Outside diameter: 1600 mm

Length: 4500 mm

Max. Weight 5000 kg

**Manufacturing process :** Centrifugal casting

**Heat treatment:** hardening, tempering, solution-annealing and stress-free annealing.

**Survey conditions:**

The pipes are to be in compliance in all respects with the requirements specified in Part D Ch 2 Sec2 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.

-Inspections and tests during production and on finished products are to be performed in compliance with Rina Rules Part D "Materials and Welding" and/or other applicable Rules and Standards.

-The marking of the samples of material is in the personal responsibility of the quality department by authisiertes personnel. The final material testing and the final marking of the products has to be carried out in the presence of the Rina Inspector.



HAMBURG March 4, 2016

**RINA**  
H. Brunk

