



**CERTIFICATE OF APPROVAL OF MANUFACTURERS OF
MATERIALS
No. 2019/XG/2579**

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>	Castings in Grey and Spheroidal Graphite Iron
<i>Manufacturer</i>	GIENANTH GMBH
<i>Place of manufacture</i>	RAMSENER STR.1 67304 EISENBERG GERMANY
<i>Reference standards</i>	RINA Rules for the approval of manufacturers of materials

Issued in **HAMBURG** on **October 1, 2019**. *This Certificate is valid until* **September 30, 2024**




RINA Services S.p.A.
Matthias Steinbusch

This certificate consists of this page and 1 enclosure



2019/XG/2579

CERTIFICATE OF APPROVAL OF MANUFACTURERS OF MATERIALS

No. FAB257919XG

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Castings in Grey and Spheroidal Graphite iron.

Gienanth GmbH
Ramser Strasse 1
67304 Eisenberg
Germany

APPROVAL CONDITIONS

- The chemical condition and the mechanical properties are to be in accordance with the RINA requirements or equivalent recognized standards.
- Iron types : Grey Iron Casting, tensile strength between 200 and 350 N/mm²
Ductile Iron Casting, tensile strength between 400 and 700 N/mm²
- Products max. weight : 5,000 kg
- Survey conditions: all casting to be used for construction of machinery components classed with RINA shall meet the requirements of the RINA Rules and shall be tested accordingly.
- Heat treatment: tempering or stress relieving heat treatment, if requested for elevated temperature service applications. They are to be carried out after any refining heat treatment and before machining.
- Welding repairs are a part of a additional individual approval.
- RINA has to be informed about any changes in the companies structures which affect the quality of the product.

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.

01.10.2019

