



# APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No:  
**AMMM00000JX**  
Revision No:  
**3**

This is to certify:

That

**Josef Brechmann GmbH & Co. KG**  
Hauptstraße 37-39, 33758 Schloß Holte-Stukenbrock,  
Germany

is an approved manufacturer of  
**Iron Castings**

in accordance with  
**DNV rules for classification – Ships**

and the following particulars:

|                                 |                          |
|---------------------------------|--------------------------|
| <b>Iron type</b>                | <b>Nodular cast iron</b> |
| <b>Casting method</b>           | <b>Sand casting</b>      |
| <b>Max. weight</b>              | <b>250 kg</b>            |
| <b>Max. thickness</b>           | <b>100 mm</b>            |
| <b>Heat treatment condition</b> | <b>See page 2</b>        |

Manufacturer(s) approved by this certificate is/are accepted to deliver according to DNV GL, DNV and GL rules. Materials to be applied to DNV classed object shall fulfill the material requirements in the applicable DNV class rules.

Issued at **Hamburg** on **2025-06-12**

This Certificate is valid until **2028-06-30**.

DNV local unit: **Essen**

Approval Engineer: **Christian Wildhagen**



for **DNV**

This document has been digitally signed and will  
therefore not have handwritten signature

Stefan Röhr

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.

## Particulars of the approval

### Cast iron

| Iron type | Grade <sup>3)</sup>           | Casting method <sup>1)</sup> | Max. weight [kg] | Max. thickness [mm] | Heat treatment condition <sup>2)</sup> |
|-----------|-------------------------------|------------------------------|------------------|---------------------|----------------------------------------|
| Nodular   | NV NCI-1                      | SC                           | 250              | 100                 | F, AC                                  |
|           | NV NCI-2                      | SC                           | 250              | 100                 | F, AC                                  |
|           | NV NCI370                     | SC                           | 250              | 100                 | AC                                     |
|           | NV NCI400                     | SC                           | 250              | 100                 | AC                                     |
|           | NV NCI500-7                   | SC                           | 250              | 100                 | AC                                     |
|           | NV NCI600-3                   | SC                           | 250              | 100                 | AC                                     |
|           | NV NCI700                     | SC                           | 250              | 100                 | AC                                     |
|           | NV NCI800                     | SC                           | 250              | 100                 | AC                                     |
|           | EN-GJS-350-22-LT acc. EN 1563 | SC                           | 250              | 100                 | F                                      |
|           | EN-GJS-350-22-RT acc. EN 1563 | SC                           | 250              | 100                 | F                                      |
|           | EN-GJS-400-18-LT acc. EN 1563 | SC                           | 250              | 100                 | F                                      |
|           | EN-GJS-400-18-RT acc. EN 1563 | SC                           | 250              | 100                 | F                                      |
|           | EN-GJS-350-22 acc. EN 1563    | SC                           | 250              | 100                 | AC                                     |
|           | EN-GJS-400-18 acc. EN 1563    | SC                           | 250              | 100                 | AC                                     |
|           | EN-GJS-400-15 acc. EN 1563    | SC                           | 250              | 100                 | AC                                     |
|           | EN-GJS-500-7 acc. EN 1563     | SC                           | 250              | 100                 | AC                                     |
|           | EN-GJS-600-3 acc. EN 1563     | SC                           | 250              | 100                 | AC                                     |
|           | EN-GJS-700-2 acc. EN 1563     | SC                           | 250              | 100                 | AC                                     |
|           | EN-GJS-800-2 acc. EN 1563     | SC                           | 250              | 100                 | AC                                     |

### Remarks:

- 1) SC: Sand casting
- 2) AC: As cast; F: Ferritizing
- 3) Incl. equivalent grades in acc. to other standards