



APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No:
AMMM00001NH
Revision No:
3

This is to certify:

That

ACO Guss GmbH
Am Gusswerk 8, 67663 Kaiserslautern,
Germany

is an approved manufacturer of
Iron Castings

in accordance with

DNV rules for classification – Ships
DNV class programme – DNV-CP-0249 Iron castings

and the following particulars:

| | |
|---------------------------------|--|
| Iron type | Grey cast iron, Nodular cast iron |
| Casting method | Sand casting, continuous casting |
| Max. weight | See page 2 |
| Max. wall thickness | See page 2 |
| Heat treatment condition | See page 2 |

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 **2024-05-16**

This Certificate is valid until **2026-09-30**.

DNV local unit: **Augsburg**

Approval Engineer: **Andreas Koch**



for **DNV**

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

Christian Wildhagen

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.



Form code: AM 311

Revision: 2022-12

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Particulars of the approval

Cast Iron

| Iron type | Grade | Casting method ¹⁾ | Max. weight [kg] ²⁾ | Max. thickness [mm] ³⁾ | Dimensions ⁴⁾ | Heat treatment condition | | | |
|-----------|---------------------------------|------------------------------|--------------------------------|-----------------------------------|---|--------------------------|-------|---|--------------------|
| Grey | EN-GJL-150 ⁶⁾ | SC | 200 kg | 30 mm | Rectangular: 35mm x 35mm up to 350mm x 350mm Round (diameter): 28 mm up to 500 mm | As cast | | | |
| | EN-GJL-200 ⁶⁾ | | | | | | | | |
| | EN-GJL-250 ⁶⁾ | | | | | | | | |
| | EN-GJL-300 ⁶⁾ | CC | | | | | | | |
| | EN-GJL-150C ⁵⁾ | | | | | | | | |
| | EN-GJL-250C ⁵⁾ | | | | | | | | |
| | EN-GJL-300C ⁵⁾ | | | | | | | | |
| Nodular | NV NCI-2 ⁶⁾ | SC | | | | 200 kg | 30 mm | Rectangular: 35mm x 35mm up to 350mm x 350mm Round (diameter): 28 mm up to 500 mm | As cast / annealed |
| | NV NCI 370 ⁶⁾ | | | | | | | | |
| | NV NCI 400 ⁶⁾ | | | | | | | | |
| | NV NCI 500 ⁶⁾ | | | | | | | | |
| | NV NCI 600 ⁶⁾ | | | | | | | | |
| | NV NCI 700 ⁶⁾ | | | | | | | | |
| | EN-GJS-350-22-LT | | | | | | | | |
| | EN-GJS-400-18-LT | | | | | | | | |
| | EN-GJS-400-18 | | | | | | | | |
| | EN-GJS-400-15 | | | | | | | | |
| | EN-GJS-450-10 | | | | | | | | |
| | EN-GJS-500-07 | | | | | | | | |
| | EN-GJS-600-3 | | | | | | | | |
| | EN-GJS-700-2 | | | | | | | | |
| | | CC | 200 kg | 30 mm | Rectangular: 35mm x 35mm up to 350mm x 350mm Round (diameter): 28 mm up to 500 mm | | | | |
| | EN-GJS-350-22C-LT ⁵⁾ | | | | | | | | |
| | EN-GJS-400-18C-LT ⁵⁾ | | | | | | | | |
| | EN-GJS-400-15C ⁵⁾ | | | | | | | | |
| | | | | | | | | | |
| | EN-GJS-500-7C ⁵⁾ | | | | | | | | |
| | EN-GJS-600-3C ⁵⁾ | | | | | | | | |
| | EN-GJS-700-2C ⁵⁾ | | | | | | | | |

Remarks:

- ¹⁾ SC: Sand casting; CC Continuous casting
- ²⁾ Max. weight for sand casting only
- ³⁾ Max. thickness for sand casting only
- ⁴⁾ Dimensions for continuous casting only
- ⁵⁾ According to customer specification WN 0-200.003 and EN 16482-2014; Application subject to special approval
- ⁶⁾ Including equivalent grades to other standards