

APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No: **AMMM00002EG** Revision No:

This is to certify:

That

B.F.E. S.r.I. Albano Sant'Alessandro, BG, Italy

is an approved manufacturer of **Steel Forgings**

in accordance with

DNV rules for classification - Ships

and the following particulars:

Application area Forgings for boilers, pressure vessels and piping systems

Stainless steel forgings

Steel type Carbon and carbon-manganese

Austenitic stainless

Austenitic-ferritic (Duplex) stainless

Forging method Closed die forging

Max. weight60 kgMax. diameter / sectionSee page 2Heat treatment conditionSee page 2Additional approval conditionsSee page 2

Issued at Hamburg on 2022-07-21

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.

for **DNV**This Certificate is valid until **2025-01-22**.
DNV local station: **Italy/Malta CMC**

Approval Engineer: Christian Wildhagen

Thereton Lehmann

Thorsten Lohmann Head of Section

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.



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Job Id: Certificate No:

263.11-009142-2 AMMM00002EG

Revision No:

Particulars of the approval

Forgings for boilers, pressure vessels and piping systems

Steel type	Grade ³⁾	Forging method ¹⁾	Max. weight [kg]	Max. diameter / section [mm]	Heat treatment condition ²⁾
C and C- Mn	VL F450H, VL F490H	CD	60	136	QT

Stainless steel forgings

Steel type ⁴⁾	Forging method ¹⁾	Max. weight [kg]	Max. diameter / section [mm]	Heat treatment condition ²⁾
Austenitic	CD	60	136	SHT
22 Cr Duplex	CD	60	136	SHT
25 Cr Duplex	CD	60	136	SHT

Remarks:

- 1) CD: Closed die forging
- 2) QT: Quenched and tempered
 - SHT: Solution Heat Treated (Solution Annealing)
- 3) Incl. equivalent grades in acc. to other standards
- Stainless steel forgings shall be in accordance with recognized standards, e.g. EN 10222, ASTM A473/A965/A1049 and JIS G 3214, provided that supplementary requirements contained herein are also met. Recognition of other standards is subject to submission to the Society for evaluation.

Special conditions:

Including austenitic stainless steel for approved low-temperature applications.

The manufacturers of starting material have to be approved by the Society.

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