



# APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No:  
**AMMM000030E**

This is to certify:

That

**Bertoloni & Botturi S.r.l.**  
Via Emblegna, 24/26,  
25085 Gavardo BS,  
Italy

is an approved manufacturer of  
**Steel Forgings**

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

and the following particulars:

<b>Application area</b>	<b>Forgings for shafting and machinery, Forgings for gearing, Forgings for boilers, pressure vessels and piping systems</b>
<b>Steel type</b>	<b>Alloy, See page 2</b>
<b>Forging method</b>	<b>Closed die forging, See page 2</b>
<b>Max. weight</b>	<b>See page 2</b>
<b>Max. diameter / section</b>	<b>See page 2</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 **2022-11-29**

for **DNV**

This Certificate is valid until **2025-11-28**.

DNV local unit: **Italy/Malta CMC**

Approval Engineer: **Christian Wildhagen**

**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.



## Particulars of the approval

### Forgings for shafting and machinery

#### Forgings for gearing

Steel type	Grade <sup>3)</sup>	Forging method <sup>1)</sup>	Max. weight [kg]	Max. diameter / section [mm]	Heat treatment condition <sup>2)</sup>
Alloy	NV F600A, NV F700A, NV F800A, NV F900A, NV F1000A, NV F1100A	CD	150	800	QT

### Forgings for boilers, pressure vessels and piping systems

Steel type	Grade <sup>3)</sup>	Forging method <sup>1)</sup>	Max. weight [kg]	Max. diameter / section [mm]	Heat treatment condition <sup>2)</sup>
Alloy	NV F0.5Mo, NV F1Cr0.5Mo	CD	150	800	NT, QT
	NV F2.25Cr1Mo	CD	150	800	N, QT

Remarks:

- 1) CD: Closed die forging
- 2) QT: Quenched and tempered
- 3) Incl. equivalent grades in acc. to other standards