

APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No:
AMMM00001HV
Revision No:
3

This is to certify:

That

Arvedi Tubi Acciaio S.p.A.

**Via Acquaviva, 3 Zona Porto Canale, 26100 Cremona, CR,
Italy**

is an approved manufacturer of
Steel Pipes and Fittings

in accordance with

DNV rules for classification – Ships

DNV-OS-B101 – Metallic materials

DNV class programme – DNV-CP-0252 Steel pipes and steel pipe fittings

and the following particulars:

Product	Pipes
Application area	Pipes for pressure systems
Steel type	Carbon and carbon-manganese
Manufacturing method	Electric resistance welding
	Hot finished
	Cold formed
Max. outer diameter	See page 2
Max. wall thickness	See page 2
Heat treatment condition	See page 2
Additional approval conditions	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 **2024-04-23**

This Certificate is valid until **2027-04-22**.

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

Approval Engineer: **Dechun Lou**



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

Pipes for pressure systems

Steel type ³⁾	Manufacturing method ¹⁾	Max. outer diameter [mm]	Max. wall thickness [mm]	Heat treatment condition ²⁾
C and C-Mn	HF ERW	88,9	10	Acc. to standard
	CF ERW	168,3		N

Remarks:

- 1) HF ERW: hot finished electric resistance welded.
CF ERW: cold formed electric resistance welded.
- 2) N: Normalised
- 3) Pipes for pressure systems
Suitable pipe grades shall be selected from the following recognized standards:
ISO 9330 Parts 1 and 2, EN 10217 Parts 1 to 3, EN 10305 Part 3, ASTM A53, ASTM A178, ASTM A214, ASTM A334, JIS G3454, JIS G3456 or JIS G3458.

Special conditions:

Including steel pipes for elevated temperature applications