

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Wire/Gas combination

with trade name
Thermanit 18/17 E Mn / M13

Manufacturer
voestalpine Böhler Welding Germany GmbH
Hamm, Germany

is found to comply with
DNV GL rules for classification – Ships
DNV GL class programme DNVGL-CP-0069 – Type approval – Welding consumables

with this approval

Grade	VL 317L*
Current	DC(+)
Approved diameter	0.8 - 1.2mm
Positions	All, including vertical-downwards
Remarks	*) Wire acc. AWS A5.9 ER317L (mod.) For Gas metal arc welding (GMAW). Impact test at -196°C average value > 32J

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV.

Issued at **Hamburg** on **2021-07-12**

This Certificate is valid until **2025-12-31**.

for **DNV**

DNV local station: **Essen**

Approval Engineer: **Dietmar Liebich**

Thorsten Lohmann
Head of Section

Any significant change in design or construction may render this Certificate invalid.

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