

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Structural Connecting Elements

with type designation(s)
Welding Bushing Type HU 4000

Issued to

Quantum Controls B.V.
NUTH, Netherlands

is found to comply with
DNV GL rules for classification – Ships

Application :

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

Issued at **Hamburg** on **2017-12-07**

This Certificate is valid until **2022-12-06**.

DNV GL local station: **Rotterdam, Product Certification /Verification**

for **DNV GL**

Approval Engineer: **Ansgar Gorissen**

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Andree Orth
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.



Job Id: **262.1-027549-1**
Certificate No: **TAS00001AM**

Product description

Welding Bushing for Fin Stabilizer

Application/Limitation

- Loading specifications as indicated in the drawing
- Supporting as indicated in the drawing
- For each individual installation on a vessel to this class, the maximum fin force should be submitted for information.
- Welding to the ship's hull must be approved separately for each individual vessel.
- Each bushing is to be delivered with DNV GL material certificates.
- Surveyor is to issue DNVGL Product Certificate.

Type Approval documentation

Drwg: 603-36-S05080-00-00

Periodical assessment

For retention of the Type Approval, DNVGL surveyor shall perform a survey every second year and before expire date of this certificate to verify that the conditions of the type approval are complied with.