

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Bulkhead Seal**

with type designation(s)

Reliant Series RM (Retrofit Model), Reliant Series YM (Yoke Model), Omni Series

Issued to

**Mide Technology Corporation
Medford, United States**

is found to comply with

DNV GL rules for classification – Ships**Application :****The bulkhead seal may be used for shafts with a diameter range from 50 mm to 1000 mm.****Products approved by this certificate are accepted for installation on all vessels classed by DNV GL.**This Certificate is valid until **2020-10-22**.Issued at **Høvik** on **2015-10-23**DNV GL local station: **New York**for **DNV GL**Approval Engineer: **Nadine Grace Mosteiro
Halvorsen**-----
**Oddvar Deinboll
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.

Product description

Bulkhead seal for shafts

Application/Limitation

The bulkhead seal may be used for shafts with diameter range from 50 mm to 1000 mm.

Maximum hydrostatic pressure: 2.06 bar.

Maximum surface speed is unlimited during normal conditions (non-contacting design).

Maximum surface speed at outside diameter: 25 m/sec for flooded condition.

Type Approval documentation

Tests carried out

DNV Survey Report NYK.11-2119 dated 2011-12-09, YM Lifetime test report dated 2011-11-17 and Lifetime test report
900-xxx-0520 dated 2011-10-20

Marking of product

The product to be marked with manufacturer's name or trademark and type number identification

Periodical assessment

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

The objective of the Periodical Assessment is to verify that the conditions for the Type Approval are not altered since the Type Approval Certificate was issued. The main scope of the Periodical Assessment will normally include:

- Verification of the Type Approval applicant's production and quality system w.r.t. ensuring continued consistent production of the Type Approved products at the Type Approval applicant's own premises and at other companies that are given the responsibility for manufacturing of the products.
- Review of the Type Approval documentation and that this is still used as basis for the production
- Review of possible changes to the design, the material and the performance of the product
- Verification of the product marking.

END OF CERTIFICATE