



Marine & Offshore

Certificate number: 01919/H0 BV File number: ACM 137/0901/001

Product code: 0725l

This certificate is not valid when presented without the full attached schedule composed of 7 sections

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TYPE APPROVAL CERTIFICATE

This certificate is issued to

LAGERSMIT SEALING SOLUTIONS B.V.

ALBLASSERDAM - NETHERLANDS

for the type of product

STERN TUBE SEALING GLANDS

STERN TUBE & THRUSTER SEALING GLANDS SUPREME AFT and FORWARD Stern tube seals SUPREME Thruster seals SUPREME Ventus System SUPREME Athmos System

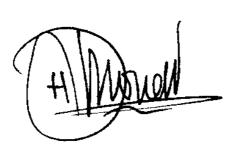
Requirements:

BUREAU VERITAS Rules for the Classification of Steel Ships.

This certificate is issued to attest that Bureau Veritas Marine & Offshore did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

This certificate will expire on: 16 Jun 2026

For Bureau Veritas Marine & Offshore, At BV GRONINGEN, on 16 Jun 2021, John Mondt





This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with Bureau Veritas Marine & Offshore. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of Bureau Veritas Marine & Offshore available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against Bureau Veritas Marine & Offshore for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

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THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

Aft and Forward stern tube seal & thruster seal types:

- "SUPREME STANDARD"
- "SUPREME LD (Low Duty)"
- "SUPREME SEAGUARD"
- "SUPREME VENTUS"
- "SUPREME SEAGUARD VENTUS"
- "SUPREME ATHMOS"
- "SUPREME SEAGUARD ATHMOS"
- "SUPREME TS (Thruster Seal)"
- "SUPREME THRUSTER VENTUS"

with optional extras as described on drawing TA-SUP-OPT revA & TA-SUP-OPT revA

- Shaft diameter range: from 70 mm to 1176 mm
- Lubrication: oil or grease
- Number of lip seals (after seal): 3 for all types except

4 for all SUPREME SEAGUARD & SUPREME TS 4 lips

SUPREME VENTUS sealing system:

Pneumatic system acting as a servo-controlled lubrication oil pressure system to ensure a constant difference of pressure between faces of lip seals independent of the seawater pressure.

This system can be incorporated into all above Supreme seal types.

2. DOCUMENTS AND DRAWINGS:

<u>Drawings:</u>

IA-SUP-X01-B	(SUPREME Standard Aft seal) 3 lips execution
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TA-SUP-X20-B (SUPREME Standard Forward seal)

TA-SUP-X30-C (SUPREME LD Aft seal)
TA-SUP-X31-C (SUPREME LD Forward seal)

TA-SUP-X40 rev B / X41-C (SUPREME Thruster seal) 3/4 lips execution TA-SUP-X43-C (SUPREME TS Ventus) 3/4 lips execution

TA-SUP-OPT-A (SUPREME Optional Extra's)

TA-SUP-X05-D (SUPREME Ventus Aft seal) 3 lips execution
TA-SUP-X60-A (SUPREME Athmos Aft seal) 3 lips execution
TA-SUP-X10-B (SUPREME Seaguard Aft seal) 4 lips execution

TA-SUP-X65-A (SUPREME Seaguard Athmos Aft seal) 4 lips execution TA-SUP-X15-A (SUPREME Seaguard Ventus Aft seal) 4 lips execution

01-60-105 Encoding seals

All semi split and fully split seal types are covered by the remarks on the principle drawings.

Other materials and/or components:

Liner : Chrome steelSeals: NBR/FKM

3. TEST REPORTS:

Nil.

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4. APPLICATION / LIMITATION:

- 4.1 Stern tube sealing glands for oil or grease lubricated stern tube.
- 4.2 The seals can be serviced without dismantling the propeller.
- 4.3 The SUPREME VENTUS & SUPREME ATHMOS sealing systems may be used where the Clean Ship or Clean Ship Super Additional Class Notations applies.
- 4.4 Due consideration is to be paid to the Manufacturer's recommendations concerning the installation, inspection, operation and maintenance of the seal.
- 4.5 Where applicable the requirements of BV Rules Part F, Ch 9, Sec 2, § 2.6.4 are to be complied with and in particular the level of the oil tank and all oil filling or topping up operations are to be recorded.
- 4.6 These sealing glands are suitable with regard to protection of the sterntube against ingress of water, as per BV Rules for the Classification of Steel Ships, Pt A, Ch 2, Sec 2, [5.5].

5. PRODUCTION SURVEY REQUIREMENTS:

- 5.1 The SUPREME AFT and FORWARD Stern tube seals and SUPREME VENTUS System and SUPREME ATHMOS System are to be supplied by **LAGERSMIT SEALING SOLUTIONS B.V.** in compliance with the type and the requirements described in this certificate.
- 5.2 This type of product is within the category IBV of Bureau Veritas Rule Note NR320.
- 5.3 BV product certificate is required.
- 5.4 **LAGERSMIT SEALING SOLUTIONS B.V.** has declared to Bureau Veritas the following production site(s):

 LAGERSMIT SEALING SOLUTIONS B.V.

 NIEUWLAND PARC 306

 2952 AD ALBLASSERDAM

 NETHERLANDS

6. MARKING OF PRODUCT:

Manufacturer's name/type. Size. Serial number. Bureau Veritas' Marks.

7. OTHERS:

- 7.1 It is **LAGERSMIT SEALING SOLUTIONS B.V.**'s responsibility to inform shipbuilders or their sub-contractors of the proper methods of fitting, use and general maintenance of the approved equipment and the conditions of this approval.
- 7.2 This Certificate supersedes the Type Approval Certificate N° 01919/G0 BV issued on 27 June 2016 by the Society.

*** END OF CERTIFICATE ***