



Confirmation of Product Type Approval

Company Name: DESMI PUMPING TECHNOLOGY A/S

Address: TAGHOLM 1 NORRESUNDBY DK-9400 Denmark

Product: Pump, Vertical In-Line Centrifugal

Model(s): ESL25-180, ESL25-180N, ESL32-180N, ESL40-180, ESL50-180, ESL65-180, ESL80-180, ESL80-180E, ESL100-180, ESL40-180N, ESL50-180N, ESL65-180M, ESL80-180N, ESL100-180N, ESLH 25-180, ESLH25-180N, ESLH32-180N, ESLH 40-180, ESLH40-180N, ESLH50-180N, ESLH65-180, ESLH65-180M, ESLH80-180E, ESLH80-180N, ESLH100-180, ESLH100-180N

Endorsements:

Certificate Type	Certificate Number	Issue Date	Expiry Date
Product Design Assessment (PDA)	24-2513415-PDA	26-MAR-2024	25-MAR-2029
Manufacturing Assessment (MA)	23-5948943	18-JUL-2023	22-AUG-2028
Product Quality Assurance (PQA)	23-5948943-PQA	18-JUL-2023	22-AUG-2028

Tier

4 - Enrolled in PQA Program

Intended Service

Ballast pumps, cooling-water pumps, general service pumps.

Description

ESL, ESLH pumps, Single Stage Vertical In-Line Centrifugal pumps.

Material combination:

- 'A' (casing - cast iron / cast iron alloy, impeller - bronze), which is intended for fresh water applications.
- 'D' (casing - bronze, impeller - bronze), which is intended for sea water applications.

Additionally all pumps are approved in material combination 'E' (special bronze) intended for sea water applications.

Ratings

Nominal Diameter: 25÷100mm

Capacity: up to 250 m³/h,

Pressure: up 30 bar

See manufacturer's pump curves.

The pump capacity will vary with working conditions and impeller design.

Service Restrictions

1. Connection flange standard and rating is to be suitable for the intended application.
2. Unit Certification is required for pumps as per:
 - Marine Vessel Rules 4-1-1/Table 6, 4-6-1/7.3.1, 4-6-1/7.3.2
 - MOU 6-1-6/Table1, 6-1-6/7.3
3. If the manufacturer or purchaser request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined

Comments

1. The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.
2. Hydrostatic and Capacity testing are to be performed at the manufacturer's plant in the presence and to the satisfaction of the Surveyor (ABS Marine Vessels Rules 4-6-1/7.3.2 a) & b).
3. Pump capacity may vary with working conditions and impeller design. Reference should be made to the manufacturer.
4. ABS witnessed additional testing may modify the pump ratings covered by this approval.

Notes, Drawings and Documentation

- 409677, ESL40/50-180N_12,
- 494513, ESL65/80/100-180N-12 Assembly,
- 490376, ESL80-180 Assembly,
- 490945, ESL50-180 Assembly,
- 491000, ESL25-180 Assembly,
- 491447, ESL40-180-12 Assembly,
- 492000, ESLH25-180 Assembly,
- 492001, ESLH40-180 Assembly,
- 408939, ESLH65_80_100-180 Assembly,
- 494588, ESLH65 80 100-180N-12 Assembly,
- 522850, ESL25-180 M IMPELLER,
- 523870, ESL40-180M IMPELLER,
- 560750, ESL40-180N M IMPELLER,
- 522810, ESL50-180 IMPELLER,
- 561120, ESL50-180N M IMPELLER,
- 528880, ESL65-180 M IMPELLER,

565780, ESL65-180M M IMPELLER,
524560, ESL80-180 M IMPELLER,
528180, ESL80-180E M IMPELLER,
528560, ESL100-180 M IMPELLER,
421841 - ESL32-180N Assembly
567590 - ESL32-180N M IMPELLER
593910 - ESL25-180N M IMPELLER
496995 - ESLH25-180N - 12 Assembly
593910 - ESLH25-180N M IMPELLER
496995 - ESLH32-180N -12 Assembly
567590 - ESLH32-180N M IMPELLER
560750, ESL40-180N -12 Assembly,
496995, ESL40-180N M IMPELLER
496995 - ESL50-180N 12 Assembly
561120 - ESL50-180N M - IMPELLER
Curves of ESL types, Curves of ESL types,
Curves of ESLH types, Curves of ESLH types,
DESMI Test Certificates for ESL pumps, DESMI Test Certificates for ESL pumps,
DESMI Test Certificates for ESLH pumps, DESMI Test Certificates for ESLH pumps,
DESMI Test-report-ESL50-180, dated 2012-02-01, No. 2011DFS/3794B,
DESMI Test Report - DSL-ESL-ESLH-SA Static Pressure Test for Pump, Dated 2018 Dec, QR-92-007
DESMI 00001078, QR-92-007 Test Report - ESLH40-180N Performance Validation Test,
DESMI 00001106, QR-92-007 Test Report - ESL25-180N Performance Validation Test,
DESMI 00001111, QR-92-007 Test Report - ESL32-180N Performance Validation Test,
DESMI 00001191, QR-92-007 Test Report - ESLH32-180N Performance Validation Test,
DESMI 00001256, QR-92-007 Test Report - ESLH25-180N Performance Validation Test,
DESMI 00001311, QR-92-007 Test Report - ESLH50-180N Performance Validation Test,
T1515, ESL INLINE OPERATION AND MAINTENANCE INSTRUCTIONS,
T1528, ESLH OPERATION AND MAINTENANCE INSTRUCTIONS,

Term of Validity

This Product Design Assessment (PDA) Certificate remains valid until 25/Mar/2029 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

ABS Rules

Rules for Conditions of Classification, Part 1 - 2024, 1-1-4/7.7, 1-1-A3, 1-1-A4, which covers the following:

Marine Vessels Rules, 2024: 4-1-1/Table 6, 4-6-1/7.3, 4-6-1/7.5.3;

Rules for Conditions of Classification, Part 1 - 2024 Offshore Units and Structures 1-1-4/9.7, 1-1-A2, 1-1-A3, which covers the following:

Mobile Offshore Unit Rules (MOU), 2024: 4-2-2/3, 6-1-6/7.3.2, 6-1-6/Table 1 and 6-1-8/11, 6-1-8/Table 1;

The Rules for Conditions of Classification - Part 1 (2024) - Light and High-Speed Craft, 1-1-4/11.9, 1-1-A2, 1-1-A3, which cover the following:

Rules for Building and Classing High Speed Craft - 2024: 4-1-1/3.3

International Standards

NA

EU-MED Standards

NA

National Standards

NA

Government Standards

NA

Other Standards

NA



A handwritten signature in black ink, appearing to read 'James W. ...', is written over a light blue grid background.

Corporate ABS Programs
American Bureau of Shipping
Print Date and Time: 17-May-2024 12:12

ABS has used due diligence in the preparation of this certificate, and it represents the information on the product in the ABS Records as of the date and time the certificate is printed.

If the Rules and/or standards used in the PDA evaluation are revised or if there is a design modification (whichever occurs first), a PDA revalidation may be necessary.

The continued validity of the MA is dependent on completion of satisfactory audits as required by the ABS Rules. The validity of both PDA and MA entitles the product to receive a **Confirmation of Product Type Approval**.

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and

Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or prior to the effective date of the ABS Rules and standards applied at the time of PDA issuance. ABS makes no representations regarding Type Approval of the Product for use on vessels, MODUs or facilities built after the date of the ABS Rules used for this evaluation.

Type Approval requires Drawing Assessment, Prototype Testing and assessment of the manufacturer's quality assurance and quality control arrangements. The manufacturer is responsible to maintain compliance with all specifications applicable to the product design assessment. Unless specifically indicated in the description of the product, certification under type approval does not waive requirements for witnessed inspection or additional survey for product use on a vessel, MODU or facility intended to be ABS classed or that is presently in class with ABS.

Due to wide variety of specifications used in the products ABS has evaluated for Type Approval, it is part of our contract that; whether the standard is an ABS Rule or a non-ABS Rule, the Client has full responsibility for continued compliance with the standard.

Questions regarding the validity of ABS Rules or the need for supplemental testing or inspection of such products should, in all cases, be addressed to ABS.