



Marine & Offshore

Certificate number: 77704/A0 BV

File number: .

Product code: 14011

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

DESMI Pumping Technology A/S

Nørresundby - DENMARK

for the type of product

CENTRIFUGAL PUMPS

Type NDB 125, NDB 150, NDB 200.

Requirements:

Bureau Veritas Rules for the Classification of Steel Ships

IGC Code

IBC Code

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: 21 Nov 2029

For Bureau Veritas Marine & Offshore,

At BV FREDERICIA, on 21 Nov 2024,

Jesper JENSEN

This certificate was created electronically and is valid without signature



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.

The electronic version is available at: <http://www.veristarm.com/veristarnb/jsp/viewPublicPdfTypepec.jsp?id=kyiceadnww>

BV Mod. Ad.E 530 June 2017

This certificate consists of 3 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION

Centrifugal pump : Type NDB 125, NDB 150, NDB 200.

1.1. Ratings

Types	DN (mm)	Capacity (m3/h)	Total head (m)(mlc)	Max. Working pressure (bar)	Operating speed (rpm)
Type NDB125	125	0 - 480	145	32	300 - 3600
Type NDB150	150	0 - 720	145	32	300 - 3600
Type NDB200	200	0 - 960	150	32	300 - 1800

Temperature range: -104°C / +45°C

1.2. Materials

Part	Material
Casing	Austenitic stainless steel (type 304 & 316)
Impeller	
Shaft	

When other choices of materials are used per manufacturer's recommendations, the BV agreement is to be obtained.

2. DOCUMENTS AND DRAWINGS

- Drawing N° 424321 Rev. A.4 dated 21/06/2023: *Type NDB150 - Mech seal unit.*
- Drawing N° 424322 Rev. A.4 dated 21/06/2023: *Type NDB150 - Bearing unit.*
- Drawing N° 424323 Rev. A.7 dated 21/06/2023: *Type NDB150 - Valve & Manometers / Pipe connection.*
- Drawing N° 424324 Rev. A.9 dated 21/06/2023: *Type NDB125/150/200 - Sectional view.*
- Drawing N° 150734 Rev. A.6 dated 21/06/2023: *Shaft F. BASEARR. 1.4410.*
- Drawing N° 597320 Rev. A.7 dated 21/06/2023: *Type NDB150 - Impeller.*
- Drawing N° 597340 Rev. A.2 dated 21/06/2023: *Type NDB150 - Casing.*
- Drawing N° 597360 Rev. A.2 dated 21/06/2023: *Type NDB150 - Rear cover.*
- Drawing N° 597380 Rev. A.6 dated 21/06/2023: *Type NDB150 - Bearing house.*
- Document N° NDB Product Spec Rev.0 dated 28/08/2024 : *Type NDB125/150/200 - Ratings.*
- Document N° NDB125 Rev.0 dated 28/08/2024 : *Type NDB125 - Part list.*
- Document N° NDB150 Rev.0 dated 28/08/2024 : *Type NDB150 - Part list.*
- Document N° NDB200 Rev.0 dated 28/08/2024 : *Type NDB200 - Part list.*
- Manual of installation, use and maintenance N° T1544 Rev. A.7 : *Drawings and parts list page.64.*

No departure from the above documents shall be made without the prior consent of the Society. The manufacturer must inform the Society of any modification or changes to these documents and drawings.

3. TEST REPORTS

Test report including a hydrostatic type test at 1.5 times the design pressure and a capacity test.

- Test report N° 99055 dated 09/05/2022.

4. APPLICATION / LIMITATION

4.1 - May be used on the following services on board: cargo handling systems of ships granted with the notation liquefied gas carrier / chemicals tankers. Medias intended to be use : LPG, NH3, VCM (Vinyl Chloride Monomer), CO2, chemical products as listed in MEPC.2/Circular.29 as amended.

4.2 - The deepwell pumps intended to be installed on Bureau Veritas classed ship granted with the notation liquefied gas carrier have to comply with Pt D, Ch 9, Sec 5 and IGC Code.

4.3 - The deepwell pumps intended to be installed on Bureau Veritas classed ship granted with the notation chemicals tankers have to comply with Pt D, Ch 8, Sec 1 and IBC Code.

4.4 - Type tests reports witnessed by Bureau Veritas are to be available for each type and size of pump.

4.5 - The pump body and internal parts shall be of a suitable type for use with fluids intended to be carried.

- 4.6 - The approval does not include the prime mover of the pump.
- 4.7 - The pump is to be installed according to manufacturer's instructions and Bureau Veritas Rules requirements.
- 4.8 - The pumps used as bilge pumps are to be fitted with efficient priming means.
- 4.9 - The use of stainless steel is restricted according to the Bureau Veritas requirements Pt C, Ch 1, Sec 10, Table 5.

5. PRODUCTION SURVEY REQUIREMENTS

- 5.1 – The products are to be supplied by **DESMI Pumping Technology A/S** in compliance with the type and the requirements described in this certificate.
- 5.2 – This type of product certificate is within the category IBV of Bureau Veritas Rule Note NR320.
- 5.3 – BV product certificate is required.
- 5.4 - The pumps are to be hydrostatically and performance tested and delivered with a BV certificate when required in Pt C, Ch1, Sec 10, table 40 of BUREAU VERITAS Rules.
- 5.5 – For information, **DESMI Pumping Technology A/S** has declared to Bureau Veritas the following production site:

Production site 1:

DESMI Pumping Technology (Suzhou) Co., Ltd.

**1st to 3rd Floor of No.4 Office
Building and No.5 Building,
No.108 Houdai Street,SIP,Suzhou City,
Jiangsu Province,P.R.China
Suzhou
CHINA**

Production site 2:

DESMI Pumping Technology A/S

**P. O. Box 226
Tagholm 1
9400 Nørresundby
DENMARK**

6. MARKING OF PRODUCT

The product shall be marked clearly and indelibly with at least:

- Trade name and serial number
- Rated speed
- Rated capacity
- Society's brand as relevant

7. OTHERS

It is **DESMI Pumping Technology A/S**'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.

*** END OF CERTIFICATE ***