



Certificate number: 79940/A0 BV

File number: .

Product code: 1403I

*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*

**SEIM S.r.l.**

Cusago - ITALY

*for the type of product*

**SCREW PUMPS**

PB Series

### 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: 05 Oct 2030**

### For Bureau Veritas Marine & Offshore,

At BV NAPOLI, on 05 Oct 2025,

Alessandro Asbornio

***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.

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BV Mod. Ad.E 530 June 2017

This certificate consists of 3 page(s)

## THE SCHEDULE OF APPROVAL

### 1. PRODUCT DESCRIPTION

#### Screw pump - PB Series

##### 1.1 - Ratings

Type	PB Series
Temperature range (°C)	+0 / +150
Design pressure (bar)	50
Capacity (m3/h)	60
Operating speed (rpm)	From 500 to 3600

##### 1.2 - Sizes per model

Model	PB020	PB025	PB032	PB040	PB045	PB055	PB060	PB072
Inlet (inch)	1"	1"	2"	2"	2-1/2"	2-1/2"	4"	4"
Outlet (inch)	1"	1"	1-1/2"	1-1/2"	2"	2"	2-1/2"	2-1/2"

##### 1.3 - Materials

Part	Raw material	Material grade
Casing	Grey cast iron	EN GJL 400
Screw	Alloy steel	20MnCr5
Shaft	Structural steel	C45 UNI EN 10277-5

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

### 2. DOCUMENTS AND DRAWINGS

- Technical specifications N° PB\_20-72\_ENG\_11-24-03.
- Drawing N° PB020#4BR0R0HLB00B01S00\_VE Rev. 0 dated 30/04/2020: *PB020 Series - 1" / 1"*.
- Drawing N° PB025#4BR0R0HLB11B01S00\_VE Rev. 0 dated 24/04/2020: *PB025 Series - 1" / 1"*.
- Drawing N° PB032#4\_R0R0HCB13B01S00\_VE Rev. 0 dated 13/05/2022: *PB032 Series - 2" / 1-1/2"*.
- Drawing N° PB040#4\_R0R0HDB13B01S00\_VE Rev. 0 dated 16/05/2022: *PB040 Series - 2" / 1-1/2"*.
- Drawing N° PB045#4\_R0R0HAB13B01S00\_VE Rev. 0 dated 20/03/2024: *PB045 Series - 2-1/2" / 2"*.
- Drawing N° PB055#4\_R0R0HAB13B01S00\_VE Rev. 0 dated 20/03/2024: *PB055 Series - 2-1/2" / 2"*.
- Drawing N° PB060#4\_R0R0HAB13B01S00\_VE Rev. 0 dated 20/03/2024: *PB060 Series - 4" / 2-1/2"*.
- Drawing N° PB072#4\_R0R0HAB13B01S00\_VE Rev. 0 dated 20/03/2024: *PB072 Series - 4" / 2-1/2"*.
- Manual of installation, use and maintenance N° PB020-025-032-040-045-055-60-72 Rev.03 dated 09/2024.

*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

- 3.1 - Type test not required.
- 3.2 - Performance tests reports N° 2503402 & N° 2503394 dated 21/05/2025 and N° 030/25 dated 24/02/2025.

#### **4. APPLICATION / LIMITATION**

4.1 - May be used on the following services on board:

- Fuel oil - Lubricating oil - Hydraulic oil - Thermal oil - Fresh water - Sea water - Bilge - Ballast water - Heavy Fuel Oil (HFO) - Fuel Oil (FO) - Diesel Oil (DO) - Gas Oil (GO) - Ultra-Low Sulfur Diesel (ULSD) - Low Sulfur Marine Gas Oil (LSMGO) -

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

4.3 - The approval does not include the prime mover of the pump.

4.4 - The pump is to be installed according to manufacturer's instructions and Bureau Veritas Rules requirements.

4.5 - The use of metallic materials is restricted according to Bureau Veritas Rules *NR 467, Pt C, Ch 1, Sec 10, Table 5*.

#### **5. PRODUCTION SURVEY REQUIREMENTS**

5.1 - The products are to be supplied by **SEIM S.r.l.** 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 *NR 320*.

5.3 - Bureau Veritas product certificate is required.

5.4 - Each pump is to be hydrostatically tested according to *NR 467, Pt C, Ch 1, Sec 10, Table 40*.

5.5 - For information, **SEIM S.r.l.** has declared to Bureau Veritas the following production site:

**SEIM S.r.l.:**  
**Via A.Volta, 17,**  
**20090 Cusago,**  
**ITALY**

#### **6. MARKING OF PRODUCT**

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

- Trade name and serial number
- Rated speed
- Rated capacity
- Bureau Veritas' Mark

#### **7. OTHERS**

It is **SEIM S.r.l.**'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 \*\*\*