

Certificate no.: TAP00002YU

for **DNV**

TYPE APPROVAL CERTIFICATE

This is to certify:

that the Pumps

with type designation(s) **DL100**, **DL125**

issued to

Svanehøj Danmark A/S Svenstrup J, Nordjylland, Denmark

is found to comply with

DNV rules for classification – Ships

Application:

Products approved by this certificate are accepted for installation on all vessels classed by DNV.

Type: Max. working press.: Operating media: Temperature range:

DL100 16 Oil and Chemicals 0-80°C DL125 16 Oil and Chemicals 0-80°C

Issued at Høvik on 2024-12-18

This Certificate is valid until 2029-12-17.

DNV local unit: **Denmark CMC**

Approval Engineer: Tage Olav Alexander Strøm

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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.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to USD 300 000.



Job ID: **262.1-042783-1** Certificate no.: **TAP00002YU**

Product description

Centrifugal deepwell cargo pump.

Manufactured by:

Svanehøj Danmark Å/S Svenstrup J, Nordjylland, Denmark

Application/Limitation

The pump is approved for piping systems handling Oil and Chemicals on board ships with the following main data:

Туре		DL100	DL125
Volume rate of flow [m³/h]		70-170	100-250
Maximum Delivery head, [m]		150	150
Min. temperature, [°C]		0	0
*M.A.W.P., [bar]		16	16
Revolution, [rpm]		2400-3350	2400-3100
Materials	Casing	AISI 316	AISI 316
	Impeller	AISI 316	AISI 316
	Shaft	AISI 316	AISI 316

^{*}maximum allowable working pressure

Performance- and technical data see manufacturers data sheet & capacity curves

Type Approval documentation

Table of Contents	31. 34183-21	61. 49273-12-SH001-A
1. Table of Contents 2. 1001-2459-00	32. 34342-00-SH001-A	62. 49283-00-B
3. 1001-2855-02	33. 35263-25-SH001-B	63, 49283-04
4. 1001-4604-01	34. 35263-26 B	64. 49327-00-SH001-B
5. 1001-4627-02	35. 35439-00-SH001-A	65. 49328-10-C
6. 1001-4718-02	36. 35629-20-SH001-A	66. 49330-10-E
7. 1001-7912-00	37. 35630-00-SH001-A	67. 49477-60
8. 1002-3390-00	38. 35747-01	68. 49499-03
9. 1002-3719-00	39. 35868-15-SH001-C	69. 49500-00
10. 1002-3721-00	40. 35869-06-SH001-C	70. 49534-00-SH001-A
11. 1002-3810-00	40. 35869-06-SH001-C 41. 36362-01	71. 49556-11-SH001-A
12. 1002-3860-00	42. 36365-02-SH001-A	72. 49640-14-SH001-A
13. 1002-3864-00	43. 36373-45-SH001-B	73. 49734-44-C
14. 1002-4669-00	44, 36390-08-B	74. 50090-17
15. 1002-4670-00	45. 36406-21-B 46. 36587-05	75. 50090-32-SH001-A
16. 1003-2766-01	46. 36587-05	76. 50112-30-SH001-A
17. 1003-3705-04	47. 36587-06	77. 50203-00
19. 1003-4429-02	48. 36587-16-A	78. 50204-00
20. 1003-4431-00	49. 36732-00-SH001-A	79. 50204-00
21. 12213-01-SH001-A		80. 50778-10-C
22. 12228-01-SH001-B	52. 41840-06	81. 50778-11-B
23. 12264-30-D	53. 41840-14-SH001-A	82. 50840-00 c Model
24. 12339-51	54. 48065-09-C	83. 50970-00 - B
25. 12696-00-SH001-C	55. 48065-25	84. 51006-00-D
26. 24001-10-SH001-A	55. 48065-25 56. 48162-13-SH001-A	85. XAAA233477-A
27. 24398-62-A	57. 48552-17-SH001-A	86. XAAA235623-A
28. 24398-63-A	58. 48552-43	87. XAAA426531-SH001—
29. 24651-01-SH001-A	59. 49182-30-SH001-A	88. XAAA742540-A (114 pg.)
30. 24677-03-B	60. 49220-54-D	143. XAAB009283-SH001-A

Marking of product

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

Periodical assessment

Periodical assessment is to be performed after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.

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In case where the type approved product is manufactured at other companies, the periodical assessment shall verify that the type approval applicant has a quality control system for consistent production at their licensees/subcontractors. Furthermore, periodical assessment shall be carried out randomly at these companies.

Other conditions

Pumps are subject to a performance test at the manufacturer's works under attendance of a DNV Surveyor and are to be presented for final inspection.

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