



Indian Register of Shipping

Certificate No.: 2021WAQC024

WORKS APPROVAL CERTIFICATE

This is to certify that based on the existing manufacturing facilities and satisfactory assessment of manufacturing and quality control procedures by our Surveyors, the name of

DESMI Pumping Technology (Suzhou) Co.,Ltd.,

No. 108 Houdai Street, Suzhou Industrial Park, 215121 Suzhou, Jiangsu Province, China

is included in the list of approved works in accordance with the relevant requirements of rule(s)/standard(s)/code described below.

WORKS TYPE : **PUMPS MANUFACTURER**
PRODUCT TYPE : Centrifugal Pumps and Gear Pumps
APPLICABLE RULE(S)/STANDARD(S)/CODE : IRS Rules and Regulations for Construction of Steel Ships
SCHEDULE OF APPROVAL : **SEE ANNEXURE I**

This Certificate Is Valid until : **21/09/2026**

PLACE OF ISSUE : **MUMBAI**

DATE OF ISSUE : **22/09/2021**

LOCAL SURVEY OFFICE : **CHINA**

FOR, INDIAN REGISTER OF SHIPPING

Premjit Panigrahi

Sr. Principal Surveyor

This Certificate is issued upon the following terms and conditions as laid down in the Society's Regulations:-
Whilst Indian Register of Shipping, a Classification Society, along with its subsidiaries and associates (hereinafter referred to as the Society) and its Board/Committees use their best endeavors to ensure that the functions of the Society are properly carried out, in providing services, information or advice neither the Society nor any of its servants or agents warrants the accuracy of any information or advice supplied. Except as set out herein neither the Society nor any of its servants or agents (on behalf of each of whom the Society has agreed this clause) shall be liable for any loss damage or expense whatever sustained by any person due to any act or omission or error of whatsoever nature and however caused of the Society, its servants or agents or due to any inaccuracy of whatsoever nature and howsoever caused in any information or advice given in any way whatsoever by or on behalf of the Society, even if held to amount to a breach of warranty. Nevertheless, if any person uses services of the Society, or relies on any information or advice given by or on behalf of the Society and suffers loss damage or expenses thereby which is proved to have been due to any negligent act omission or error of the Society, its servants or agents or any negligent inaccuracy in information or advice given by or on behalf of the Society then the Society will pay compensation to such person for his proved loss up to but not exceeding the amount of the fee charged by the Society for that particular service, information or advice.
Any notice of claim for loss, damage or expense, as referred to above, shall be made in writing to the Society's Head Office within six months of the date when the service, information or advice was first provided, failing which all the rights to any such claim shall be forfeited and the Society shall be relieved and discharged from all liabilities.

ANNEXURE - I
SCHEDULE OF APPROVAL

PRODUCT DESCRIPTION/DETAILS:	Centrifugal Pumps and Gear Pumps for marine application See Table-I for product range and specification
REMARKS:	-
RESTRICTIONS:	-
DOCUMENTATION:	1. QEHS Manual Version C/4 2. List of QC Procedures - QR-91-24 Version A/0 3. Testing Instructions
TEST REPORTS:	For sampled pumps - HD126EDKT-1U22B and NSL250-330 E/A02
CONDITIONS OF APPROVAL:	This approval is subject to:
1	Approval of works under this scheme does not eliminate normal inspection and testing. Annual audit is to be carried out and Annexure-II of the certificate duly endorsed.
2	Any alteration being made to manufacturing facilities and procedures would require re-assessment of the works for continued approval.
3	Material of pump casing, impeller, rotors/shafts & internal parts is to be suitable for the fluid being handled. Applications for water, fuel, diesel oil, gas oil lube oil, HVAC has been included. Any other special application is to be considered on case basis.
4	Materials containing asbestos are not to be used in the pump construction.

Table – 1 Pump Specifications

1	CENTRIFUGAL PUMPS	Model/Size	Maximum Rotation (Rpm)	Impeller Range (mm)	Q (m3/h)	Head (m)
1.1	Vertical In-line Double Suction	DSL/150-265 to 450-490	3600	215-515	0-4847	0-153
1.2	Vertical In-line / Horizontal end-suction single-stage	ESL/25-180 to 100-180N & ESLH/25-180 to 100-180N	ESL: 3600 (Frequency conversion maximum 4000) ESL: 3600	ESL: 90-180 ESLH: 90-180	ESL: 0-280 ESLH: 0-260	0-92 0-68
1.3	Vertical In-line	NSL/80-215 to 350-525	3600	140-525	0-2480	0-214
1.4	Vertical and horizontal end-suction	NSLV/65-215 to 350-525 & NSLH/65-215 to 350-525	3600	150-525	0-2480	0-260
1.5	Self-priming Horizontal	Modular S/ 32-25-110N to 125-100-220N	3600	110-275	0-415	0-161
1.6	Horizontal self-priming centrifugal pump	SA/20-90 to 200-320	3600 (Using a diesel engine is up to maximum 6000)	71-320	0-826	0-122
1.7	Deep well lube oil pump	DL/300-500N	1800	198-400	0-1328	0-310
2	ROTAN GEAR PUMPS	Model/Size	Speed Range (Rpm)	Size (DN: mm)	Q (m3/h)	Pressure (Bar)
2.1		GP	Upto 1750	25-100	0-52	0-16
2.2		HD	Upto 1750	25-200	0-265	0-16
2.3		PD	Upto 1750	25-200	0-265	0-16
2.4		CD	Upto 1750	25-200	0-265	0-16
2.5		ED	Upto 1750	25-150	0-92	0-16

ANNEXURE – II

Periodical Surveillance Audit Due On : <September, 2022 >
 <September, 2023 >
 <September, 2024 >
 <September, 2025 >

The validity of this certificate is renewed on satisfactory completion of periodical surveillance audit in accordance with above schedule

Signature _____

Surveyor's Name _____ *IRS Stamp* _____

Outport _____

Date _____

Signature _____

Surveyor's Name _____ *IRS Stamp* _____

Outport _____

Date _____

Signature _____

Surveyor's Name _____ *IRS Stamp* _____

Outport _____

Date _____

Signature _____

Surveyor's Name _____ *IRS Stamp* _____

Outport _____

Date _____
