



CERTIFICATE NUMBER	24-2529198-PDA
EFFECTIVE DATE	16-Apr-2024
EXPIRY DATE	15-Apr-2029
ABS TECHNICAL OFFICE	Corporate Technology Admin

CERTIFICATE OF Product Design Assessment

This is to certify that a representative of this Bureau did, at the request of

NIKKISO ACD LLC

located at

2321 S. PULLMAN ST., , SANTA ANA, CA, United States, 92705

assess design plans and data for the below listed product. This assessment is a representation by the Bureau as to the degree of compliance the design exhibits with applicable sections of the Rules. This assessment does not waive unit certification or classification procedures required by ABS Rules for products to be installed in ABS classed vessels or facilities. This certificate, by itself, does not reflect that the product is Type Approved. The scope and limitations of this assessment are detailed on the pages attached to this certificate.

Product: Pump
Model: SLS, GUPD, MP-100
Endorsements:
Tier: 5 - Unit Certification Required

This Product Design Assessment (PDA) Certificate remains valid until 15/Apr/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.

American Bureau Of Shipping
<i>Mohamed C Boukamcha</i>
Mohamed C Boukamcha,Engineer/Consultant

NOTE: This certificate evidences compliance with one or more of the Rules, Guides, standards or other criteria of ABS or a statutory, industrial or manufacturer's standards. It is issued solely for the use of ABS, its committees, its clients or other authorized entities. Any significant changes to the aforementioned product without approval from ABS will result in this certificate becoming null and void. This certificate is governed by ABS Rules 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010)

NIKKISO ACD LLC

2321 S. PULLMAN ST.

SANTA ANA CA

United States 92705

Telephone: 949-2617533

Fax: 949-261-6285

Email: szavala@nikkisociieg.com

Web: www.NikkisoCEIG.com

Tier: 5 - Unit Certification Required

Product: Pump
Model: SLS, GUPD, MP-100
Endorsements:

Intended Service:

Marine Application - On board of vessels for liquid natural gas, nitrogen, ethane or ethylene applications

Description:

High Pressure Reciprocating Pump

Rating:

Design Temperatures: -165C to +65C

Power: 153 kW

Speed Range: 100 to 940 RPM

Maximum discharge Pressure: 448 bar

(MP-100: 373kW, 600RPM, 900 Bar; GUPD: 153 kW, 940

RPM, 1172 Bar; SLS: 300 kW, 1000 RPM, 414 Bar)

Service Restriction:

1. Unit Certification is required for this product if intended for Liquefied Gases application as per 5C-8-5/13.1.3 of the Marine Vessel Rules. 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.

2. Unit Certification is required for this product if the pumps are used for services listed in Marine Vessels Rules 4-6-1/7.3.1, hydrostatic and capacity testing is to be performed to the satisfaction of the Surveyor as indicated in Marine Vessels Rules 4-6-1/7.3.2 a), b).

Comments:

The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.

Notes/Drawing/Documentation:

Drawing No. /, SLS, GUPD, and MP-100 High Pressure Reciprocating Pumps, Revision: /, Pages: 189

Drawing No. /, SLS, GUPD, and MP-100 High Pressure Reciprocating Pumps, Revision: /, Pages: 5

Drawing No. /, SLS, GUPD, and MP-100 High Pressure Reciprocating Pumps, Revision: /, Pages: 11

Drawing No. /, SLS, GUPD, and MP-100 High Pressure Reciprocating Pumps, Revision: /, Pages: 6

Terms of Validity:

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STANDARDS

NIKKISO ACD LLC

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Tier: 5 - Unit Certification Required

ABS Rules:

2024 Rules for Conditions of Classification 1-1-4/7.7, 1-1-A3 and A4, which covers the following:
2024 Rules for Building and Classing Marine Vessel Rules: 4-6-1/7.3.1, 4-6-1/7.3.2 a), b).; 5C-8-5/13.1.3

National:

NA

International:

IGC Code, IGF Code

Government:

NA

EUMED:

NA

OTHERS:

NA



Task – WO0144445
Product Design Assessment (PDA)
New PDA for High Pressure Reciprocating Pump
Model: SLS, GUPD, MP-100
PDA No. 24-2529198-PDA

Attention: Dale Kostic, Nikkiso ACD LLC (WCN: 420192)

The documents shown in the attached lists are reviewed for the new PDA of the subject product in accordance with the applicable requirements indicated in the PDA along with the service restrictions and comments.

We recommend that you monitor the ABS Rules, Guides and other standards used in the Assessment. These Rules, Guides and standards often change on an annual basis, and you must comply with the new Rules, Guides and standards in order for the product to be used on an ABS classed vessel or facility contracted under the new Rules, Guides or specifications.

Additionally, we have received your clarification stating that the material used in the system indicated in the submittal is free from asbestos.

For any clarifications, contact Mr. Aung Khant at 281-877-6630 or (AKhant@eagle.org).

Very truly yours,

Leile Froufe
Vice President of Engineering

Electronically Signed by: Mohamed C. Boukamcha

Documents List

Drawing No.	Rev.	TITLE	Status
Hydrostatic Test	-	Hydrostatic Pressure Test Reports	Filed by ABS for Reference only
Performance Test	-	Factory Acceptance Test Reports	Filed by ABS for Reference only

Electronic copies of the documents appropriately stamped are available in the ABS Client Portal.