CERTIFICATE NUMBER	25-0396088-PDA
EFFECTIVE DATE	10-Oct-2025
EXPIRY DATE	09-Oct-2030
ABS TECHNICAL OFFICE	Houston ESD - Piping

CERTIFICATE OF

Product Design Assessment

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

GATES CORPORATION

located at

330 INVERNESS DRIVE SOUTH, , ENGLEWOOD, CO, United States, 80112

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:	**Non-Metallic Flexible Hoses with End Fittings**
Model:	**MXG 4K XTP** **MXG 5K XTP**
Endorsements:	
Tier:	**2 - PDA Issued**

This Product Design Assessment (PDA) Certificate remains valid until 09/Oct/2030 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

Electronically Signed by:

John Vincent B. Ulep
Senior Principal Engineer

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)

Sensitivity: Internal & Restricted

GATES CORPORATION
330 INVERNESS DRIVE SOUTH
ENGLEWOOD CO
United States 80112
Telephone: 303-744-4189
Fax:
Email: Kai.Luo@gates.com
Web: www.gates.com

Tier: 2 - PDA Issued

Product: **Non-Metallic Flexible Hoses with End Fittings**
Model: **MXG 4K XTP**
MXG 5K XTP
Endorsements:

Intended Service:
Marine and Offshore Applications - High Pressure Hydraulic Fluid, Compressed Air, Fresh Water, and Sea Water Systems.

Description:
Flexible Wire Braid MXG 4K XTP Hoses with GS Couplings
Flexible Wire Braid MXG 5K XTP Hoses with GS Couplings

Rating:
MODEL MXG 4K XTP
Size: 6 (3/8") - MAWP 4,060 psi; Coupling GS.
Size: 8 (½") - MAWP 4,060 psi; Coupling GS
Size: 10 (5/8") - MAWP 4,060 psi; Coupling GS
Size: 12 (¾") - MAWP 4,060 psi; Coupling GS
Size: 16 (1") - MAWP 4,060 psi; Coupling GS

MODEL MXG 5K XTP
Size: 6 (3/8") - MAWP 5,075 psi; Coupling GS.
Size: 8 (½") - MAWP 5,075 psi; Coupling GS
Size: 10 (5/8") - MAWP 5,075 psi; Coupling GS
Size: 12 (¾") - MAWP 5,075 psi; Coupling GS

Service Temperature Range: -40 ºF to 250 ºF (-40 ºC to +121 ºC)

Service Restriction:
i) Unit Certification is not required for this product. 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.
ii) Flexible hoses are not acceptable in high pressure fuel oil injection systems.
iii) The types of end connections utilized (e.g. threaded, flanged, etc.) are to comply with the applicable requirements and limitations of the Marine Vessel Rules 4-6-2/5.7.3 b)
iv) Flexible hose assemblies are not applicable to hoses intended to be used in fixed fire extinguishing systems.
v) Fittings made of aluminum are not to be used on the hose assembly.
vi) The brass fittings are not used on hoses for flammable oils.

Comments:
i) The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.
ii) Flexible Hoses are to be complete with Factory Assembled End Fittings or Factory Supplied Ends installed in accordance with Manufacturer's Procedure in accordance with Marine Vessel Rules 4-6-2/5.7.3(b).
iii) Flexible Hose Assemblies are to be installed only where flexibility is required and are not to be subject to torsional deflection under normal conditions. In addition, the Length of the Flexible Hose is to be limited to the required for flexibility only as indicated in Marine Vessel Rules 4-6-2/5.7.4.
iv) Flexible Hoses are to be permanently marked by the manufacturer with the following details: Hose Manufacturer's Name or Trademark, Date of Manufacture (Month/Year), Nominal Diameter, Pressure and Temperature Rating in accordance with Marine Vessel Rules 4-6-2/5.7.6.

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Notes/Drawing/Documentation:
Drawing No. AD-592, MXG5K-XTP Hose Assembly, Revision: A, Pages: 1
Drawing No. GS Coupling Catalog (Edi 2019), GS Coupling Catalog (Edi 2019), Revision: -, Pages: 1
Drawing No. LOCC13261, MXG5K-XTP Burst and Fire Test (DNV endorsed), Revision: -, Pages: 1
Drawing No. MXG5K-XTP Hose Data Sheet, PRODUCT DATA SHEETS, Revision: -, Pages: 1
Drawing No. MXG5K-XTP Hose Data Sheet (006), PRODUCT DATA SHEETS, Revision: -, Pages: 1
Drawing No. Submission for MXG5K-XTP ABS Type Approval, Submission for MXG5K-XTP ABS Type Approval, Revision: -, Pages: 1
Drawing No. LOCC12746, ABS New Type Approval Fire and Burst Test for MXG4K-XTP, Revision: -, Pages: -
Drawing No. B-143 - Hose Brand Specification
Drawing No. Design Theory, Helically Wound Hose Reinforcement
Drawing No. Catalog, Global Spiral(GS) Coupling Catalog
Drawing No. LOCC12746, ABS New Type Approval Fire and Burst Test for MXG 4K XTP, Gates Tech. ChangZhou, China, Dated 23 Sep 2020
Drawing No. MXG 4K XTP, Hose Assembly
Drawing No. MXG 4K XTP, Technical Submission for ABS TA
Drawing No. MXG4K-XTP Data Sheet_edition 04 Feb 2020

Terms of Validity:
This Product Design Assessment (PDA) Certificate remains valid until 09/Oct/2030 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).

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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.

STANDARDS

ABS Rules:
2025 Rules for Conditions of Classification 1A-1-4/7.7, 1A-1-A3, 1A-1-A4, which covers the following:
2025 Marine Vessel Rules 4-6-2/5.7;

2025 Rules for Conditions of Classification 1B-1-4/9.7, 1B-1-A2, 1B-1-A3, which covers the following:
2025 Offshore Unit Rules 4-2-1/11.29

National:
SAE J517 - 2020

International:
ISO 15540:2016
ISO 15541:2016
ISO 18752: 2025

Government:
NA

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EUMED:
NA

OTHERS:
NA