



CERTIFICATE NUMBER	24-0060315-PDA
EFFECTIVE DATE	29-Aug-2024
EXPIRY DATE	28-Aug-2029
ABS TECHNICAL OFFICE	Houston ESD

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: **MXT, MXT-XTP**
Endorsements:
Tier: **2 - PDA Issued**

This Product Design Assessment (PDA) Certificate remains valid until 28/Aug/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

Electronically Signed by:

John Vincent Bog-Acon 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)

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: MXT, MXT-XTP

Endorsements:

Intended Service:

Marine and Offshore Applications - High Pressure Hydraulic Oil Systems.

Description:

Flexible Wire Braid MXT Hoses with MegaCrimp Couplings (G Type) and End Fittings.

In addition to standard cover, cover can be delivered as XtraTuff Plus™ (XTP)

Rating:

Coupling Sizes and Maximum Allowable Working Pressure:

Size 4 (1/4") - MAWP 6090 psi (420 Bar); Coupling G, B-SS.

Size 5 (5/16") - MAWP 5500 psi (380 Bar); Coupling G, B-SS.

Size 6 (3/8") - MAWP 4800 psi (330 Bar); Coupling G, B-SS.

Size 8 (1/2") - MAWP 4000 psi; (280 Bar); Coupling G, B-SS.

Size 10 (5/8") - MAWP 3625 psi (250 Bar); Coupling G, B-SS.

Size 12 (3/4") - MAWP 3125 psi (215 Bar); Coupling G, B-SS.

Size 16 (1") - MAWP 2400 psi (165 Bar); Coupling G, B-SS.

Each Hose Model may only utilize End Fittings corresponding with the End Fitting Series number listed above.

Service Temperature Range: -40 °F to 212 °F (-40 °C to +100 °C).

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 hose 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 2024 Rules for Building and Classing Marine Vessels 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) All Flexible Hoses Assemblies are to be burst tested to demonstrate they are able to withstand a pressure not less than four times its design pressure in accordance with 2024 Rules for Building and Classing Marine Vessels 4-6-2/5.7.5 b)
- vii) 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) The hoses are to be complete with factory assembled end fittings or factory supplied ends installed in accordance with manufacturer's procedure in accordance with 2024 Rules for Building and Classing Marine Vessels 4-6-2/5.7.3(b).
- iii) 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 hose is to be limited to the required for flexibility only as indicated in 2024 Rules for Building and Classing Marine Vessels 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), designation type reference, nominal diameter, pressure and temperature rating in accordance with 2024 Rules for Building and Classing Marine Vessels 4-6-2/5.7.6.

Notes/Drawing/Documentation:

Drawing No. LOC12479, Fluid Power Development - CC Test Lab Order_LOCC12479, Revision: 0, Date: 31JUL2019, Pages: 6

Drawing No. LOC12713, Fluid Power Development - CC Test Lab Order_LOCC12713, Revision: 0, Date:

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12JUN2020, Pages: 4

Drawing No. DataSheet-1, MXT Hose Data Sheet (US), Revision: 0, Pages: 2

Drawing No. Catalog-1, MegaCrimp (Type G) Coupling Catalog, Revision: 0, Pages: 45

Terms of Validity:

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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:

2024 Rules for Conditions of Classification, 1A-1-4/7.7, 1A-1-A3 and A4, which covers the following:

2024 Rules for Building and Classing Marine Vessels: 4-6-2/5.7

2024 Rules for Conditions of Classification - Offshore Units and Structures, 1-1-4/9.7, 1-1-A2, 1-1-A3, which covers the following:

2024 Rules for Building and Classing Mobile Offshore Units: 4-2-1/11.29

National:

SAE J517 100R16-2020 (Sizes 4-16)

SAE J517 100R2-2020 (Sizes 4-16)

International:

ISO 15540 & 15541 - 2016

ISO 11237 - 2017

Government:

NA

EUMED:

NA

OTHERS:

NA