



CERTIFICATE NUMBER 23-2373360-PDA
EFFECTIVE DATE 17-Apr-2023
EXPIRY DATE 16-Apr-2028
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

WARREN RUPP, INC.

located at

**800 NORTH MAIN ST., P.O. BOX 1568, , MANSFIELD, OH, United
States, 44901**

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, Air Operated Diaphragm
Model: Sandpiper Models: S05, S1F, S15, S20, S30, SB1/SB25, ST1/ST25, ST1-1/2 / ST40, HDB2, HDB1-1/2 / HDB40, HDF1, HDF2, HDF3/HDF4, HDF3-M/HDF4-M, DMF2R/DMF2S, DMF3S
Versa-Matic Elima-M...
Endorsements:
Tier: 3 - Type Approved, unit certification not required

This Product Design Assessment (PDA) Certificate remains valid until 16/Apr/2028 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

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)

WARREN RUPP, INC.

800 NORTH MAIN ST.

P.O. BOX 1568

MANSFIELD OH

United States 44901

Telephone: 419-524-8388

Fax: 419-524-2068

Email: asexton@idexcorp.com

Web: www.warrenruppinc.com

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Product: Pump, Air Operated Diaphragm
Model: Sandpiper Models: S05, S1F, S15, S20, S30, SB1/SB25, ST1/ST25, ST1-1/2 / ST40, HDB2, HDB1-1/2 / HDB40, HDF1, HDF2, HDF3/HDF4, HDF3-M/HDF4-M, DMF2R/DMF2S, DMF3S
Versa-Matic Elima-Matic Models: E1 (1"), E2 (2"), E3 (3"), E4 (1.5")

Endorsements:

Intended Service:

Marine & Offshore Applications - Sanitary System, Seawater and General Purpose Non-Essential Applications, as well as Bilge Application as a Secondary Non-Required Pump.

Description:

Air-Operated Double Diaphragm Pumps with T Series Surge Suppressors.

Rating:

Sandpiper Models:

Maximum Operating Pressure Sandpiper Models: 125 psi

Maximum Operating Pressure for ATEX compliant (Pump Models equipped with Kit Options A1, A2, A3, A4 or P1 only): 100 psi

S05 (0-15 GPM); S1F (0-45 GPM); S15 (0-106 GPM); S20 (0-200 GPM); S30 (0-285 GPM); SB1/SB25 (0-42 GPM); ST1/ST25 (0-42 GPM); ST1-1/2/ST40 (0-106 GPM);

HDB2 (0 - 135 GPM); HDB1-1/2 / HDB40 (0-90 GPM); HDF1 (0-70 GPM); HDF2 (0-208 GPM); HDF3/HDF4 (0-310 GPM); HDF3-M/HDF4-M (0-303 GPM); HDB3-A (0-260 GPM);

DMF2R/DMF2S (0-140 GPM), DMF3S. (0-260 GPM).

Temperature Limit: 212°F (100°C);

Versa-Matic Models:

E1-1" Bolted Metal: Rubber and TPE fitted (0-49 GPM), PTFE fitted (0-38 GPM)

E2-2" Clamped Pump - Metallic Center: Elastomeric and TPE fitted- Rugged (0-185 GPM), Elastomeric and TPE fitted- Domed (0-167 GPM), PTFE fitted (0-153 GPM)

E2-2" Bolted Aluminum Pump - Metallic Center: Elastomeric and TPE fitted- Rugged (0-163 GPM), Elastomeric and TPE fitted- Domed (0-154 GPM), PTFE fitted (0-143 GPM)

E2-2" Bolted Stainless Pump - Metallic Center: Elastomeric and TPE fitted (0-160 GPM), PTFE fitted (0-157 GPM)

E3-3" Bolted Aluminum: Rubber and TPE fitted-Rugged (0-273 GPM), Rubber and TPE fitted-Domed (0-252 GPM), PTFE fitted (0-186 GPM)

E3-3" Bolted Stainless Pump - Metallic Center: Elastomeric and TPE fitted-Rugged (0-273 GPM), Elastomeric and TPE fitted-Domed (0-252 GPM), PTFE fitted (0-186 GPM)

E3-3" Clamped: Rubber and TPE fitted-Rugged (0-234 GPM), Rubber and TPE fitted-Domed (0-229 GPM), PTFE fitted (0-180 GPM)

E4-1-1/2" Bolted Pump - Metallic Center: Elastomeric and TPE fitted (0-71 GPM), PTFE fitted (0-64 GPM)

Maximum Operating Pressure Versa-Matic Models: 125 psi ATEX compliant.

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 and tolerances, must be clearly defined.

ii) These pumps are not approved for essential service or bilge service as listed in the Marine Vessel Rules 4-6-1/7.3.1.

iii) Each installation is to be reviewed by ABS Technical Office.

Comments:

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

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ii) This approval does not include the flexible conductive connections or pipe connections of the pumps.

Notes/Drawing/Documentation:

Review Package, Pump DMF2R/DMF2R, DMF3S, Engineering Documentation (drawings page 4, 15, 18)

Drawing No. 060.045.000 Rev. D, Weldment, Cage Base.

Drawing No. 060.096.000 Rev. F, Base Pump.

Drawing No. 429.001.000 Rev. A Cam & Groove, Male Adapter.

FM Approval IEC EEX m T4; Atex EX IM2 c T5 & EX II 2GD T5

Drawing No. 429.001.156, CAM & GROOVE, MALE ADAPTER, Revision: A, Pages: 1

Drawing No. HDB1_M_HDBall, HDB1½ / HDB40 METALLIC BALL VALVE PUMP TECHNICAL DATA SHEET, Revision: 1018,

Drawing No. HDB2_M_HDBall, HDB2 METALLIC BALL VALVE PUMP TECHNICAL DATA SHEET, Revision: 1018,

Drawing No. HDF1_M_HDFLAP, HDF1 METALLIC HEAVY DUTY FLAP VALVE TECHNICAL DATA SHEET, Revision: 817,

Drawing No. HDF2_M_HDFLAP, HDF2 METALLIC HEAVY DUTY FLAP VALVE TECHNICAL DATA SHEET, Revision: 118,

Drawing No. HDF3A_HDFLAP, HDF3-A & HDF4-A HEAVY DUTY FLAP VALVE PUMP TECHNICAL DATA SHEET, Revision: 118,

Drawing No. HDF3M_HDFLAP, HDF3-M & HDF4-M HEAVY DUTY FLAP VALVE TECHNICAL DATA SHEET, Revision: 118,

Drawing No. S05_M_STANDARD, S05 METALLIC PUMP TECHNICAL DATA SHEET, Revision: 817,

Drawing No. S15_M_STANDARD, S15 METALLIC PUMP TECHNICAL DATA SHEET, Revision: 817,

Drawing No. S1F_M_STANDARD, S1F METALLIC PUMP TECHNICAL DATA SHEET, Revision: 817,

Drawing No. S20_M_STANDARD, S20 METALLIC PUMP TECHNICAL DATA SHEET, Revision: 817,

Drawing No. S30_M_STANDARD, S30 METALLIC PUMP TECHNICAL DATA SHEET, Revision: 817,

Drawing No. SB1_M_HDBall_New, SB1 & SB25 METALLIC PUMP TECHNICAL DATA SHEET, Revision: 817,

Drawing No. ST15_M_Containment, ST1½ & ST40 METALLIC PUMP TECHNICAL DATA SHEET, Revision: 1018,

Drawing No. ST1_M_Containment221, ST1 & ST25 METALLIC PUMP TECHNICAL DATA SHEET, Revision: 221,

Drawing No. VM_DofC_ATEX_MetallicAndNon-Metallic_V_Rev1022, Versamatic EU Declaration of Conformity, Revision: 1022, Dated 03 Oct 2022

Drawing No. VM_DofC_CE-Machine_Rev1022, Versamatic EC Declaration of Conformity, Revision: 1022, Dated 03 Oct 2022

Drawing No. WR_DofC_ATEX_V_Rev1022, Sandpiper EU Declaration of Conformity, Revision: 1022, Dated 03 Oct 2022

Drawing No. WR_DofC_CE-Machine_Rev1022, Sandpiper EC Declaration of Conformity, Revision: 1022, Dated 03 Oct 2023

Drawing No. e1mdlCsmATEX-Rev1122, Service & Operating Manual 1" Elima-Matic Bolted metal-ATEX, Revision: 1122,

Drawing No. e2mdlCsmATEXC-Rev1122, Service & Operating Manual 2" Elima-Matic Clamped Metal-ATEX, Revision: 1122,

Drawing No. e3mdlCsmATEXC_Rev1122, Service & Operating Manual 3" Elima-Matic Clamped Mettalic ATEX, Revision: 1122,

Drawing No. e4mdlAsmC-Rev1122, Service & Operating Manual 1.5" Elima-Matic Bolted Mettalic, Revision: 1122,

Terms of Validity:

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STANDARDS

ABS Rules:

2023 Rules for Conditions of Classification, 1-4/7.7, 1-1-A3, 1-1-A4, which covers the following:

2023 Rules for Building and Classing Steel Vessels 4-6-1/7.3.1, 7.5.3 iii)

2023 Rules for Condition of Classification, Part 1, 2019 Offshore Units and Structures 1-1-4/9.7, 1-1-A2, 1-1-A3 which covers the following:

2023 Rules for Building and Classing Mobile Offshore Units 4-2-2/3, 6-1-6/7.3.2.

National:

NA

International:

EN 809:2012,

EN ISO 80079-36:2016,

EN ISO 80079-37:2016

EN 60079-25:2010

Government:

NA

EUMED:

NA

OTHERS:

NA