



CERTIFICATE NUMBER
EFFECTIVE DATE
EXPIRY DATE
ABS TECHNICAL OFFICE

22-2216513-PDA
25-Feb-2022
24-Feb-2027
Houston ESD - Piping

CERTIFICATE OF Product Design Assessment

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

A-T CONTROLS

located at

**9955 INTERNATIONAL BOULEVARD, CINCINNATI, OH, United
States, 45246**

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: Valve, Resilient Seated Butterfly Valves
Model: NS & ES
Endorsements:
Tier: 3 - Type Approved, unit certification not required

This Product Design Assessment (PDA) Certificate remains valid until 24/Feb/2027 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

Yongjin Lee, 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)

A-T CONTROLS

9955 INTERNATIONAL BOULEVARD

CINCINNATI OH

United States 45246

Telephone: 513-247-5465

Fax: 513-247-5462

Email: jmurphy@atcontrols.com

Web: a-tcontrols.com

Tier: 3 - Type Approved, unit certification not required

Product: Valve, Resilient Seated Butterfly Valves

Model: NS & ES

Endorsements:

Intended Service:

Marine & Offshore Applications - various piping systems.

Description:

NS Series NSF 61 & 372 rated, Dead End Service

Manual and Automated Butterfly Valves

Lug or Wafer body, ANSI 125/150 flanges

Bidirectional

Vulcanized molded rubber seat design

Square stem and ISO 5211 mounting pad for direct mounting

Body: ASTM A395 / A351 CF8M

Seat: EPDM (NSF) / Buna-N / (FKM/Viton)

Disc: A351 CF8M (NSF) / Nylon Coated DI (NSF) / Nickel Plated DI / Aluminum Bronze

ES Series

Manual and Automated Butterfly Valves

Lug or Wafer body, ANSI 125/150 flanges

Bidirectional

Cartridge rubber seat design

Square stem and ISO 5211 mounting pad for direct mounting

Body: ASTM A395 / A351 CF8M

Seat: EPDM / Buna-N / (FKM / Viton) / PTFE over EPDM / White Food Grade EPDM (up to 12" only)

Disc: A351 CF8M / Nylon Coated DI / Aluminum Bronze / Nickel Plated DI

Rating:

NS Series

Size: 2", 2-1/2", 3", 4", 5", 6", 8", 10", 12", 14", 16", 18", 20", 24"

Body Material- A351 CF8M (corresponding pressures and temperatures)

(all sizes) -20 to 100F, 275 psig

(all sizes) 450F, 183 psig

Body Material- A395 65-45-15 Ductile Iron (corresponding pressures and temperatures)

(all sizes) -20 to 100F, 250 psig

((all sizes) 450F, 185 psig

ES Series

Size: 1-1/2", 2", 2-1/2", 3", 4", 5", 6", 8", 10", 12", 14", 16", 18", 20", 24", 28", 30", 32", 36", 40", 48"

Body Material- A351 CF8M (corresponding pressures and temperatures)

(all sizes) : -20 to 100F, 275 psig

(all sizes): 450F, 183 psig

Body Material- A395 65-45-15 Ductile Iron (corresponding pressures and temperatures)

(1-1/2"-24") : -20 to 100F, 250 psig

(28"-48") : -20 to 100F, 150 psig

(1-1/2"-24"): 450F, 185 psig

(28"-48"): 450F, 150 psig

Service Restriction:

1. 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

A-T CONTROLS

9955 INTERNATIONAL BOULEVARD

CINCINNATI OH

United States 45246

Telephone: 513-247-5465

Fax: 513-247-5462

Email: jmurphy@atcontrols.com

Web: a-tcontrols.com

Tier: 3 - Type Approved, unit certification not required

tolerances, must be clearly defined.

2. As per MVR 4-6-2/5.11.3 (c), "Resilient materials, where used, are subject to service limitations as specified by the manufacturers. Use of resilient materials in valves intended for fire mains is to be specifically approved based on submittal of certified fire endurance tests conforming to a recognized standard." No fire endurance test is conducted and hence these valves cannot be used in Fire main, Fire-fighting and other systems where fire testing is required.

3. Nodular iron is not permitted for the construction of valves and fittings for temperatures of 350°C (662°F) and above. Nodular iron may be used for Classes I and II piping systems and for valves listed in 4-6-2/3.1.4 provided it has an elongation of not less than 12% in 50 mm. See of 4-6-2/3.1.5 of the MVR.

4. Valves are not suitable for Class I and II piping systems having nominal diameters exceeding 50 mm (2in). See 4-6-2/5.11.3(d) of MVR.

5. Wafer-type butterfly valves are not acceptable as shell valves. See 4-6-2/9.13.2 ii of the MVR.

Comments:

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

2. All valves are to bear permanent identification, such as manufacturer's name or trademark, standard of compliance, material identity, pressure rating, etc., as required by the standard of compliance or the manufacturer's specification. Such markings may be cast or forged integral with, stamped on, or securely affixed by nameplate on the component, and are to serve as a permanent means of identification of the component throughout its service life. See 4-6-1/7.1.4 of the MVR and 4-2-2/9.5 of the the MOU.

3. All valves intended for installation on the side shell at or below the deepest load waterline, including those at the sea chests, are to be hydrostatically tested in the presence of the Surveyor, before installation. Test pressure & holding time are to comply with 4-6-2/7.3.2 of the MVR. Also see 4-2-2/9.1.2 of the MOU.

4. Wafer-style valves with non-conductive gaskets seals are to be earthed (grounded) to the hull such that the resistance between any point on the piping and the hull (across joints, pipe to hull) does not exceed 1 mega-ohm. See 4-6-2/7.5 of the MVR.

Notes/Drawing/Documentation:

Document No. IOM08088, NS Series Installation and Maintenance Manual, Revision: 0, Pages: 7

Document No. IOM08135, Installation and Maintenance Manual ES Series, Revision: 0, Pages: 15

Drawing No. P02716 Rev A, RSBFV NS Series Body Dimensions per ASME B16-34-2017 Figure 2, Revision: A, Pages: 1

Drawing No. P03252 Rev A, ES Series RSBFV Body Dimensions for ASME B16.34-2017 Figure 2, Revision: A, Pages: 1

Document No. RSBFV-3R_20220107, NS RSBFV Catalog, Revision: 0, Pages: 8

Document No. RSBFV-3R_20220107, ES Catalog, Revision: 0, Pages: 12

Document No. TR00222 Rev 2/23/22, NS Series CRN Report (Calculations), Revision: 1, Pages: 5

Document No. TR00326 Rev 2/23/22, ES Series CRN Report (Calculations), Revision: 1, Pages: 5

Terms of Validity:

This Product Design Assessment (PDA) Certificate remains valid until 24/Feb/2027 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.

A-T CONTROLS

9955 INTERNATIONAL BOULEVARD

CINCINNATI OH

United States 45246

Telephone: 513-247-5465

Fax: 513-247-5462

Email: jmurphy@atcontrols.com

Web: a-tcontrols.com

Tier: 3 - Type Approved, unit certification not required

STANDARDS

ABS Rules:

Rules for Conditions of Classification, Part 1 – 2022 Rules for Building and Classing Marine Vessels 1-1-4/7.7, 1-1-A3, 1-1-A4, which covers the following:

2022 Marine Vessel Rules: 4-6-2/5.11, 4-6-2/5.15

Rules for Conditions of Classification, Part 1 - 2022 Rules for Building and Classing Mobile Offshore Units 1-1-4/9.7, 1-1-A2, 1-1-A3, which covers the following:

2022 Mobile Offshore Unit Rules: 4-2-2/9

National:

NA

International:

NA

Government:

NA

EUMED:

NA

OTHERS:

NA