



Confirmation of Product Type Approval

Please refer to the "Service Restrictions" shown below to determine if Unit Certification is required for this product. This certificate reflects the information on the product in the ABS Records as of the date and time the certificate is printed.

Pursuant to the Rules of the American Bureau of Shipping (ABS), the manufacturer of the below listed product held a valid Manufacturing Assessment (MA) with expiration date of 09-JUN-2024. The continued validity of the Manufacturing Assessment is dependent on completion of satisfactory audits as required by the ABS Rules.

And; a Product Design Assessment (PDA) valid until subject to continued compliance with the Rules or standards used in the evaluation of the product.

The above entitle the product to be called Product Type Approved.

The Product Design Assessment is valid for products intended for use on ABS classed vessels, MODUs or facilities which are in existence or under contract for construction on the date of the ABS Rules used to evaluate the Product.

ABS makes no representations regarding Type Approval of the Product for use on vessels, MODUs or facilities built after the date of the ABS Rules used for this evaluation.

Due to wide variety of specifications used in the products ABS has evaluated for Type Approval, it is part of our contract that; whether the standard is an ABS Rule or a non-ABS Rule, the Client has full responsibility for continued compliance with the standard.

Product Name: Valve, Deluge Flow Control
Model Name(s): E-1, E-2, E3 & E4

Presented to:

VIKING CORPORATION
210 NORTH INDUSTRIAL PARK ROAD
MI 49058
United States

Intended Service:

Marine & Offshore Application - Valves are used in the Deluge System.

Description:

Models E-1, E-2, E3 & E4 Valves are used to control the water flow in Deluge Systems, sizes: 1½", 2", 3", 4" & 6" Valve sizes: 1½" & 2" have NPT threaded End Connections. Sizes 3", 4" & 6" are available with Flange Inlets and Flange or groove Outlets. Valve size 1½" is Model E3 and E4 only. Valve size 2", 3", 4" & 6" are Models E1 & E-2 only. Models E-2 & E-4 valves are coated inside and outside for protection against corrosive environments.

Tier:

3

Ratings:

Maximum Working Pressure Rating: to 250 psi (17.2 bar)

Service Restrictions:

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) To be used and installed in accordance with manufacturer's recommendations. iii) Deluge Valve models E2 & E4 are suitable for use in corrosive environments.

Comments:

i) The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product. ii) All the components are to bear the Manufacturer's Trademark and Identification legibly stamped or cast on the exterior of the component and also the Primary Pressure Rating.

Notes / Documentation: Drawing No. Viking_DoC (2), Declaration of Conformity dated 18 Apr 2019
 Technical Data Deluge Valve 210a, dated Nov. 30, 2007, Deluge Valve Model E-1 Angle Style 2" (DN50) Technical Data Deluge Valve 210a, dated July 01, 2011, Deluge Valve Model E-1 Angle Style 2" (DN50) Technical Data Deluge Valve 211a, dated Nov. 30, 2007, Deluge Valve Model E-1 Angle Style 3" (DN80), 4" (DN100) & 6" (DN150) Technical Data Deluge Valve 211a, dated Feb. 24, 2012, Deluge Valve Model E-1 Angle Style 3" (DN80), 4" (DN100) & 6" (DN150) Technical Data Deluge Valve 209a, dated Nov. 30, 2007, Deluge Valve Model E-3 Angle Style 11/2" (DN40) Technical Data Deluge Valve 209a, dated July 01, 2011, Deluge Valve Model E-3 Angle Style 11/2" (DN40) Technical Data Deluge Valve 212a, dated Nov. 30, 2007, Deluge Valve Model E-4 Halar Coated Angle Style 11/2" (DN40) Technical Data Deluge Valve 213a, dated Nov. 30, 2007, Deluge Valve Model E-2 Halar Coated Angle Style 3"(DN80)-6"(DN150) Technical Data Deluge Valve 213a, dated June 24, 2011, Deluge Valve Model E-2 Halar Coated Angle Style 3"(DN80)-6"(DN150)

Term of Validity: This Product Design Assessment (PDA) Certificate 19-HS1862983-PDA, dated 10/Jun/2019 remains valid until 09/Jun/2024 or until the Rules or specifications used in the assessment are revised (whichever occurs first). This PDA is intended for a product to be installed on an ABS classed vessel, MODU or facility which is in existence or under contract for construction on the date of the ABS Rules or specifications used to evaluate the Product. Use of the Product on an ABS classed vessel, MODU or facility which is contracted after the validity date of the ABS Rules and specifications used to evaluate the Product, will require re-evaluation of the PDA. Use of the Product for non ABS classed vessels, MODUs or facilities is to be to an agreement between the manufacturer and intended client.

ABS Rules: 2019 Marine Vessels Rules 1-1-4/7.7 ,1-1-A3, 1-1-A4, 4-6-2/5.11 2019 Mobile Offshore Units Rules 1-1-4/9.7 ,1-1-A2, 1-1-A3, 4-2-2/9.1.1

National Standards: UL 260 (March 2004) FM 1011/1012 and 1013 (September 2009) and 1020 (April 2007)

International Standards:
Government Authority:
EUMED:
Others:

Model Certificate	Model Certificate No	Issue Date	Expiry Date
PDA	19-HS1862983-PDA	10-JUN-2019	09-JUN-2024



ABS Programs

ABS has used due diligence in the preparation of this certificate and it represents the information on the product in the ABS Records as of the date and time the certificate was printed. Type Approval requires Drawing Assessment, Prototype Testing and assessment of the manufacturer's quality assurance and quality control arrangements. Limited circumstances may allow only Prototype Testing to satisfy Type Approval. The approvals of Drawings and Products remain valid as long as the ABS Rule, to which they were assessed, remains valid. ABS cautions manufacturers to review and maintain compliance with all other specifications to which the product may have been assessed. Further, unless it is specifically indicated in the description of the product; Type Approval does not necessarily waive witnessed inspection or survey procedures (where otherwise required) for products to be used in a vessel, MODU or facility intended to be ABS classed or that is presently in class with ABS. Questions regarding the validity of ABS Rules or the need for supplemental testing or inspection of such products should, in all cases, be addressed to ABS.