



## ***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 20/APR/2020. 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 22/APR/2020 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**  
**Model Name(s): F-1 (Deluge) - Straight Through Valve**

**Presented to:**

VIKING CORPORATION  
210 NORTH INDUSTRIAL PARK ROAD  
United States

|                              |   |
|------------------------------|---|
| <b>Intended Service:</b>     | Marine & Offshore Application - Used to Control Water Flow in Deluge and Preaction Sprinkler Systems.   |
| <b>Description:</b>          | Deluge Valve Model F-1 manufactured with body of Ductile Iron ASTM A536 (65-45-12), Flanged, Grooved or Threaded Inlet and Outlet End Connections. The Valves can be used for Horizontal or Vertical (upright) Service.   |
| <b>Tier:</b>                 | 3   |
| <b>Ratings:</b>              | Sizes 1½", 2" and 2½" with Grooved or Threaded Inlet/Outlet End Connections. Sizes 3", 4" and 6" with Grooved or Flanged Inlet/Outlet End or Flanged Inlet/ Grooved Outlet End Connections. Size 8" with Grooved or Flanged Inlet/Outlet End Connections. Maximum Allowable Working Pressure (MAWP): 250 PSI  |
| <b>Service Restrictions:</b> | 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. i) Installation is to be in accordance with manufacturer's recommendations.  |
| <b>Comments:</b>             | The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product. i) The manufacturer of a valve is to guarantee that the valve is constructed to the standard and conforming to the identifications to which it is market. The manufacturer is to guarantee also that the valve has been tested before shipment to the pressure required by the pressure rating of the valve. The |

Certificate of test is to be submitted upon request as indicated in Steel Vessel Rules 4-6-2/5.11.4. 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 at which the manufacturer guarantees the valve to meet the requirements of the standards as indicated in MODU Rules 4-2-2/9.5.

**Notes / Documentation:**

Declaration of Conformity no changes. FM Approval Report Project ID 3022001 Dated 28-Feb-05. FM Approval Report Project ID 3017826 Dated 9-Sep-03. FM Approval Report Project ID 3012863 Dated 18-April-03 Drawing No. 12133 Rev. 3 - Valve Ass'y, Deluge Valve 1 1/2" (DN40) Drawing No. 12399 Rev. 2 - Valve Ass'y, Deluge Valve 2 1/2" (DN65) & 76mm w/3" OD. Drawing No. 12065 Rev. 2 - Valve Ass'y, Deluge Valve 2" (DN50) Drawing No. 12032 Rev. 4 - Valve Ass'y, Deluge Valve 3" (DN80) Drawing No. 11512 Rev. 5 - Valve Ass'y, Deluge Valve 4" (DN100) Drawing No. 11523 Rev. 7 - Valve Ass'y, Deluge Valve 6" (DN150) Drawing No. 10523 Rev. 12 - 8" Deluge Valve UL VLFTZ.EX2006 Certificate - Special System Water Control Valves, Deluge Type Certified for Canada.

**Term of Validity:**

This Product Design Assessment (PDA) Certificate 15-HS1332725-PDA, dated 23/Apr/2015 remains valid until 22/Apr/2020 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:**

The Rules for Conditions of Classification, Part 1 2015 Steel Vessels Rules 1-1-4/7.7, 1-1-A3, 1-1-A4, which covers the following: Steel Vessel 4-6-2/5.11; The Rules for Conditions of Classification, Part 1 – 2015 Offshore Units and Structures 1-1-4/9.7, 1-1-A2, 1-1-A3, which covers the following: Mobile Offshore Drilling Units 4-2-2/9;

**National Standards:**

FM Standard Class 1011/1012/1013:2009; FM Standards Class 1020:2007; UL 260 Edition 7:2004

**International Standards:**

**Government Authority:**

**EUMED:**

**Others:**

| Model Certificate | Model Certificate No | Issue Date  | Expiry Date |
|-------------------|----------------------|-------------|-------------|
| PDA               | 15-HS1332725-PDA     | 24/APR/2015 | 22/APR/2020 |



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.