



CERTIFICATE NUMBER

04-HS407984B/1-PDA

DATE

28 August 2009

ABS TECHNICAL OFFICE

Houston OED - Equipment

# CERTIFICATE OF Design Assessment

This is to Certify that a representative of this Bureau did, at the request of  
**VIKING CORPORATION - HASTINGS**

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. It will remain valid as noted below or until the Rules or specifications used in the assessment are revised (whichever occurs first).

PRODUCT: Fire Sprinkler

MODEL: VK300, VK302, VK310, VK350, VK352 & VK354

ABS RULE: 2009 Steel Vessels Rules 1-1-4/7.7, 4-7-3/9.5.

OTHER STANDARD: UL199, NFPA 13,; BS-EN12259-1; Manufacturers Data Sprinkler 51a to e, dated 25 Apr 08;

AMERICAN BUREAU OF SHIPPING

Hans P. Haendler

Engineering Type Approval Co-ordinator

**VIKING CORPORATION**

210 NORTH INDUSTRIAL PARK ROAD  
HASTINGS  
MI 49058  
United States  
Telephone: 269-945-9501  
Fax: 269-945-9599

**MA Certificate No.** 04-CH557068-X

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**Product:** Fire Sprinkler

**Model:** VK300, VK302, VK310, VK350, VK352 & VK354

**Intended Service:**

Automatic Sprinkler Heads - Heat Activated - for Fire Control and Suppression.

**Description:**

VK300 - Quick Response, Standard Orifice, Upright Sprinkler with 1/2" NPT Threads.  
VK302-Quick Response, Standard Orifice, Pendent Sprinkler with 1/2" NPT Threads.  
VK310 - Quick Response, Standard orifice, Conventional Sprinkler with 1/2" NPT Threads.  
VK350 - Quick Response, Large Orifice, Upright Sprinkler with 3/4" NPT Threads.  
VK352- Quick Response, Large Orifice, Pendent Sprinkler with 3/4" NPT Threads.  
VK354 - Quick Response, Large Orifice, Conventional Sprinkler with 3/4" NPT Threads

**Ratings:**

Temperature ratings of : 135°F, 155°F, 175°F, 200°F, 286°F, 360°F in brass chrome and white poly finishes.  
Minimum operating pressure 7 psi (0.5, Maximum 175 psi - Refer to attached Manufacturer's Data Sheet for all Technical Data of Specific Models.

**Service Restrictions:**

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.  
Details of the temperature ratings and location, where sprinklers are fitted are to be submitted for review with the vessel specific sprinkler system drawings.  
Where escutcheons are fitted, they are to be installed in accordance with the manufacturer's instructions with special regard as to which sprinkler model uses which model escutcheon.

**Comments:**

None

**Notes / Drawings / Documentation:**

This Product Design Assessment (PDA) is valid only 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.

**Term of Validity:**

This product/model is covered under Product Design Assessment (PDA) Certificate # 04-HS407984B/1-PDA, dated 28/Aug/2009. This PDA Certificate expires 27/Aug/2014. It will remain valid for 5 years from date of issue or until the Rules or specifications used in the assessment are revised (whichever occurs first). It is valid for all vessels contracted on or before the date of the Rules used in this evaluation.

**STANDARDS**

**ABS Rules:**

2009 Steel Vessels Rules 1-1-4/7.7, 4-7-3/9.5.

**National:**

UL199, NFPA 13,

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**International:**

BS-EN12259-1

**Government Authority:**

NA

**EUMED:**

NA

**Others:**

Manufacturers Data Sprinkler 51a to e, dated 25 Apr 08