APPROVAL REPORT

MODEL VK150, VK154, VK158 AND VK160
BULB TYPE CONTROL-MODE (DENSITY/AREA) DRY PENDENT AND UPRIGHT STANDARD RESPONSE AUTOMATIC SPRINKLERS WITH A NOMINAL DISCHARGE COEFFICIENT OF 5.6 GAL/MIN/(PSI)^{1/2}
WITH MODIFICATION

Prepared for:

The Viking Corporation
210 North Industrial Park Road
Hastings, MI 49058

Project ID: 3027148
Class: 2013
Date of Approval: 2 February 2009
Authorized by: Richard B. Dunne, Manager-Hydraulics Group

FM Approvals
1151 Boston-Providence Turnpike
P.O. Box 9102
Norwood, MA 02062

1 of 10
APPROVAL REPORT

MODEL VK150, VK152, VK154, VK156, VK158, VK160 AND VK162 BULB TYPE CONTROL-MODE (DENSITY/AREA) DRY PENDENT, UPRIGHT AND HORIZONTAL SIDEWALL STANDARD RESPONSE AUTOMATIC SPRINKLERS WITH A NOMINAL DISCHARGE COEFFICIENT OF 5.6 GAL/MIN/(PSI)^{1/2} WITH MODIFICATIONS

Prepared for:

The Viking Corporation
210 North Industrial Park Road
Hastings, MI  49058

Project ID:  3014551
Class:  2013
Date of Approval:  1 July 2003
Authorized by:  [Signature]

George A. Smith, Group Manager - Materials

FM Approvals
1151 Boston-Providence Turnpike
P.O. Box 9102
Norwood, MA 02062

1 of 8
APPROVAL AGREEMENT

The Agreement is made by and between Factory Mutual Research Corporation (herein called Factory Mutual Research)

and  The Viking Corporation, Hastings, Michigan  49058

(herein called the Client). The Client is making a product or providing a service known and described as:

MODELS VK150, VK152, VK154, VK156, VK158 AND VK160, 5 MM BULB TYPE, CONTROL-MODE (DENSITY/AREA), STANDARD RESPONSE, DRY AUTOMATIC SPRINKLERS WITH A NOMINAL DISCHARGE COEFFICIENT OF 5.6 GAL/MIN/(PSI)^1/2 (MODIFICATION)

This product or service has been examined by Factory Mutual Research as described in a report bearing

Job Identification  3011390, dated  22 April 2002.

In consideration of Factory Mutual Research Approval of the product or service, the Client is authorized to indicate such Approval, as stated by the above report, and agrees to the following and terms stated on the reverse side of this Agreement:

1. The Client shall place a unique identification mark (i.e. model or type number) on the product as stated in the above report and shall not place this mark on any other product unless covered by a separate Agreement with Factory Mutual Research.

2. The Client shall use the Factory Mutual Research Approval Mark on the product, but shall not use this mark on any other product unless such other product is covered by separate Agreement with Factory Mutual Research.

3. The Client shall not use, reproduce or distribute the above referenced report by Factory Mutual Research except in its entirety without any change, deletion or addition thereto. The Client agrees that Factory Mutual Research may distribute the referenced report and related information within FM Global. (See Over)

The Viking Corporation

Scott T. Franson
Director, Sprinkler Division
210 N Industrial Park Rd
Hastings MI  49058
May 17, 2002

FACTORY MUTUAL RESEARCH CORPORATION

Roger L. Allard
Group Manager - Hydraulics
May 3, 2002
APPROVAL AGREEMENT

The Agreement is made by and between Factory Mutual Research Corporation (herein called Factory Mutual Research) and Viking Corporation, Hastings, MI 49058 (herein called the Client). The Client is making a product or providing a service known and described as:

MODEL VK154
BULB TYPE
CONTROL MODE (DENSITY/AREA)
DRY ADJUSTABLE PENDENT AUTOMATIC SPRINKLER

MODEL VK156
BULB TYPE
CONTROL MODE (DENSITY/AREA)
DRY ADJUSTABLE HORIZONTAL SIDEWALL AUTOMATIC SPRINKLER

This product or service has been examined by Factory Mutual Research as described in a report bearing Job Identification 3011975 dated August 3, 2001.

In consideration of Factory Mutual Research Approval of the product or service, the Client is authorized to indicate such Approval, as stated by the above report, and agrees to the following and terms stated on the reverse side of this Agreement:

1. The Client shall place a unique identification mark (i.e. model or type number) on the product as stated in the above report and shall not place this mark on any other product unless covered by a separate Agreement with Factory Mutual Research.

2. The Client shall use the Factory Mutual Research Approval Mark on the product, but shall not use this mark on any other product unless such other product is covered by separate Agreement with Factory Mutual Research.

3. The Client shall not use, reproduce or distribute the above referenced report by Factory Mutual Research except in its entirety without any change, deletion or addition thereto. The Client agrees that Factory Mutual Research may distribute the referenced report and related information within FM Global.

The Viking Corporation

Scott T. Franson
Director, Sprinkler Division
210 N. Industrial Park Rd
Hastings MI 49058
August 20, 2001

FACTOR MUTUAL RESEARCH CORPORATION

R.L. Martell
Asst. V.P. – Approvals Division

An FM Global Affiliate
APPROVAL AGREEMENT

The Agreement is made by and between Factory Mutual Research Corporation, (herein called FMRC), and The Viking Corporation, Hastings, Michigan 49058 (herein called the Client). The Client is making a product or providing a service known and described as:

MODEL M
BULB TYPE, DRY RECESSED AUTOMATIC SPRINKLERS
WITH THREADED CONNECTION OF 1 IN. NPT AND IN FINISHES OF CHROMIUM AND BRASS PLATED. TEMPERATURE RATINGS OF 135, 155, 175, AND 200°F (57, 68, 79, AND 93°C)

This product or service has been examined by FMRC as described in the report bearing Job Identification 1H3A4.AH dated May 2, 1994.

In consideration of FMRC Approval of the product or service the Client authorized to indicate such approval, as stated by the above report, and agrees to the following and terms stated on the reverse side of this Agreement:

1. The Client shall place a unique identification mark (i.e. model or type number) on the product as stated in the above report and shall not place this mark on any other product unless covered by separate agreement with FMRC.

2. The Client shall use the FMRC Approval mark on the product, but shall not use this mark on any other product unless such other product is covered by separate agreement with FMRC.

3. The Client shall not use, reproduce or distribute the above referenced report by FMRC except in its entirety without any change, deletion or addition thereto. The Client agrees that FMRC may distribute the referenced report and related information within the Factory Mutual System.

THE VIKING CORPORATION

James G. Retzloff
Vice President Design & Development

FACTORY MUTUAL RESEARCH CORPORATION

R. L. Martell
Asst. V.P. - Approvals Division

210 N. Industrail Park Rd.
Hastings, MI 49058

May 27, 1994

Signature

Name

Title

Address

Date
APPROVAL AGREEMENT

The Agreement is made by and between Factory Mutual Research Corporation, (herein called FMRC), and The Viking Corporation, Hastings, Michigan 49058 (herein called the Client). The Client is making a product or providing a service known and described as:

MODEL M
BULB TYPE, STANDARD DRY PENDENT AUTOMATIC SPRINKLERS
WITH THREADED CONNECTION OF 1 IN. NPT. AND IN FINISHES OF
PLAIN BRASS AND CHROMIUM PLATED
TEMPERATURE RATINGS OF 135, 155, 175, 200, AND 286°F
(57, 68, 79, 93, AND 141°C)

This product or service has been examined by FMRC as described in the report bearing Job Identification 1T3A3.AH dated, March 29, 1994
In consideration of FMRC Approval of the product or service the Client authorized to indicate such approval, as stated by the above report, and agrees to the following and terms stated on the reverse side of this Agreement:

1. The Client shall place a unique identification mark (i.e. model or type number) on the product as stated in the above report and shall not place this mark on any other product unless covered by separate agreement with FMRC.

2. The Client shall use the FMRC Approval mark on the product, but shall not use this mark on any other product unless such other product is covered by separate agreement with FMRC.

3. The Client shall not use, reproduce or distribute the above referenced report by FMRC except in its entirety without any change, deletion or addition thereto. The Client agrees that FMRC may distribute the referenced report and related information within the Factory Mutual System. (See Over)

The Viking Corporation

James G. Retzloff
Vice President, Design & Development
310 N. Industrial Park Rd.
Hastings, MI 49058
May 4, 1994

FACTORY MUTUAL RESEARCH CORPORATION

R. L. Martell
Asst. V.P. - Approvals Division
April 18, 1994
## Certificate of Compliance

### Automatic Control Mode Sprinklers for Fire Protection

This certificate is issued for the following equipment:

<table>
<thead>
<tr>
<th>Model</th>
<th>K</th>
<th>Type</th>
<th>Resp.</th>
<th>Element</th>
<th>NPT (in.)</th>
<th>Finishes</th>
<th>Temperature Ratings °F (°C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>VK150</td>
<td>5.6</td>
<td>Dry Pendent</td>
<td>SR</td>
<td>5 mm</td>
<td>1</td>
<td>Brass, Chrome</td>
<td>135(^\circ), 155(^\circ), 175(^\circ), 200(^\circ), 286(^\circ)F (57(^\circ), 68(^\circ), 79(^\circ), 93(^\circ), 141(^\circ)C)</td>
</tr>
<tr>
<td>VK152</td>
<td>5.6</td>
<td>Dry Horizontal Sidewall</td>
<td>SR</td>
<td>5 mm</td>
<td>1</td>
<td>Brass, Chrome, Bright Brass</td>
<td>135(^\circ), 155(^\circ), 175(^\circ), 200(^\circ), 286(^\circ)F (57(^\circ), 68(^\circ), 79(^\circ), 93(^\circ), 141(^\circ)C)</td>
</tr>
<tr>
<td>VK156</td>
<td>5.6</td>
<td>Dry Adj. Horizontal Sidewall</td>
<td>SR</td>
<td>5 mm</td>
<td>1</td>
<td>Brass, Chrome, Bright Brass</td>
<td>135(^\circ), 155(^\circ), 175(^\circ), 200(^\circ), 286(^\circ)F (57(^\circ), 68(^\circ), 79(^\circ), 93(^\circ), 141(^\circ)C)</td>
</tr>
</tbody>
</table>

Manufactured by: The Viking Corp, 210 N Industrial Park Rd, Hastings, Michigan 49058

Manufacturing Location: The Viking Corp, 210 N Industrial Park Rd, Hastings, Michigan 49058

FM Approvals confirms that the items have been found to comply with the following standard:

FM Approvals Standard 2000 (March 2006)

Project Identifier: 3026351 Date of Approval: May 5, 2009

Richard B. Dunne
Group Manager - Hydraulics

Date May 8, 2009