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# **Underwriters Laboratories Inc.**®

VIKING CORP MR E JACKSON 210 N INDUSTRIAL PARK RD HASTINGS MI 49058

### RE: Project Number(s) - 01RS57539

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**VLTR** 

November 19, 2001

Accessories for Special Systems

#### VIKING CORP 210 N INDUSTRIAL PARK RD, HASTINGS MI 49058

EX1130

Valve tripping equipment and accessories for "Viking" water supply control valves.

Thermostatic (combined rate-of-rise and fixed temperature): Thermostatic releases, Models C-1, C-2, releasing air or water under pressure from the pilot line. Maximum smooth ceiling spacing, 50 by 50 ft. For Model C-1. Model C-2 with spacing of 40 ft by 40 ft.

Thermostatic (fixed temperature): Pilot line equipped with Listed "Viking" automatic sprinklers opening of which bleeds pressure (air or

Thermostatic fixed temperature release: Model M, glass bulb type; 135, 155, 175, 200, 286 F temperature ratings, for use on sprinkler system pilot lines for system pressures up to 250 psig. Upon activation the fixed temperature release bleeds pressure (air or water) from pilot line. Maximum smooth ceiling spacing, 20 by 20 ft for 155, 200, 286 F temperature ratings and 40 by 40 ft for 135 and 175 F temperature ratings. The spacings specified are for flat, smooth ceiling construction of ordinary height, generally regarded as the most favorable condition for distribution of heated air currents resulting from a fire. Under other forms of ceiling construction reduced spacing may be required. The fire tests conducted to determine the suitability of the spacings are conducted in a 60 by 60 ft room having a 15 ft 9 in. high smooth ceiling and minimum air movement. The test fire (denatured alcohol) is located approximately 3 ft above the floor and of a magnitude so that sprinkler operation is obtained in approximately two minutes. obtained in approximately two minutes.

For comparative purposes, automatic sprinklers rated 160 F are installed on a 10 by 10 ft spacing schedule in an upright position with the deflectors approximately 7 in. below the ceiling. At the maximum permissible spacing for the heat detectors they must operate prior to operation of the sprinklers. The placement and spacing of the fixed temperature releases should be based on consideration of the ceiling construction, ceiling height, room or space areas, spaced sub-divisions, the normal room temperature, possible exposure of the devices to abnormal heat such as may be produced by manufacturing processes or equipment and to draft conditions likely to be encountered at the time of

Electric: Magnetically operated switches (industrial control) electrically operated actuating valves, Types ASCO HV-264-857-1, 24 VDC or 120 VAC, Viking Part No. 07832 or 07833 Respectively, to release air or water under pressure from pilot line. Valve circuit energized by connection to Listed electric type fire detectors, thermostats for releasing device service, or Viking releasing device control panel.

For wet pilot line having water under pressure: Viking Model C-1 pressure-operated relief valve, for use with Viking special system water control valves as indicated in the installation instructions for each type valve and when thermostatically operated tripping mechanism is

employed. Maximum operating service pressure 250 psig.

Releasing device control panel, Model A-1, Part No. 039860, to be used with Listed power supply having battery back up capable of 24 hr.

standby. It is designed to provided multiple application capabilities in one standard control unit.

Pneumatic actuators, Models H-1, R-1 for use with Viking special system water control valves as indicated in the individual Listings and

Prime shut-off valves, Models A-1, A-2 for use with Viking special system water control valves as indicated in the individual Listings and manufacturer's installation instructions for each type valve.

Prime shut-off valves, Models A-1, A-2 for use with Viking special system water control valves as indicated in the individual Listings and manufacturer's installation instructions for each type valve.

For pressure regulating valve trim: Viking Model C-2 pilot pressure regulating valve, for use in Viking Model H-1 and H-2 deluge valve pressure regulating trim assemblies, Part Nos. 09065, 09066, 09067, 09068 only.

Heat detector secondly for releasing device regriged Model B (Viking Part Nos. 04711A, 04712A, 04718A, 047

Heat detector assembly for releasing device service: Firecycle Model B (Viking Part Nos. 04711A, 04717A, 04718A, 04719A, 08288, 08289, 08290, 08291) rate compensation type fixed temperature normally closed circuit contact detector in the 140, 160, 190, 225 F temperature ratings. For indoor use only with Listed (HNIR) Firecycle detector cable (Viking Part Nos. 04632-A, 099954) in the detection section of Listed (VLLA) Firecycle III- Special System Water Control Valve- Flow Cycling Assemblies. Upon activation the detector contacts open and provide the electrical detection

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signal to the flow cycling assembly releasing device panel. The detector assembly is to be located and mounted in accordance with NFPA 72, Chaper 5, local codes and the manufacturer's installation instructions with a maximum smooth ceiling spacing of 40 by 40 ft. for the 140 F temperature rating and 25 by 25 ft. for the 160, 190 and 225 F temperature ratings with the distance of the detector assembly from any walls or partition not more than 20 ft. for the 140 F and 12.5 ft. for the 160, 190 and 225 F temperature ratings.

Manual emergency stations, Viking Models C-1, C-2, C-3. An emergency station connected to the pilot line of a deluge valve in order to provide a remote manual means of releasing pressure from the line, thereby tripping the deluge valve.

Electrically operated actuating valves, Models 11591NC, 11593NC.

Authorities having jurisdiction should be consulted before installation.

LOOK FOR LISTING MARK ON PRODUCT



# UL Underwriters Laboratories Inc.®

VIKING CORP MR E JACKSON 210 N INDUSTRIAL PARK RD HASTINGS MI 49058

### RE: Project Number(s) - 99NK43678

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VLFT September 14, 2001 Special System Water Control Valves, Deluge Type

### VIKING CORP 210 N INDUSTRIAL PARK RD, HASTINGS MI 49058

EX2006

Water control valves for horizontal or vertical installation. Models E-1, E-2, H-1, H-2 in the 1-1/2 in., size rated 175 psig. Models E-3, E-4, H-3, H-4 in the 1-1/2 in. size rated 250 psig. Models E-1, E-2, H-1, H-2 in the 2, 3, 4 and 6 in. sizes rated 250 psig. Models F-1, F-2, J-1, J-2 in the 8 in. size rated 250 psig. For operation by wet pilot sprinklers, the height of pilot line above valve is limited as shown in the Manufacturer's Installations Instructions. For accessories used with these valves, see listing under "Accessories For Special Systems". Models E-1 and E-2 water control valves in the 2, 3, 4 and 6 in. sizes, and Models E-3 and E-4 in the 1-1/2 in. size are rated to 250 psig when provided with optional Viking EZ Trim, installed in accordance with the manufacturer's installation instructions. Models H-1, H-2 water control valves in the 2, 4 and 6 in. sizes are rated 175 psig when provided with optional Viking pressure regulating trim assembly Part Nos. 09066, 09067, 09068, installed in accordance with the manufacturer's installation instructions. Authorities having jurisdiction to be consulted before installation.

#### LOOK FOR LISTING MARK ON PRODUCT