

Fire Extinguishers & Cabinets 10.44.00

Description:

The purpose of the section is to highlight the current applicable UMD Design Standards for the type and installation of the fire extinguishers and associated cabinets.

Related Sections:

- TBD

Effective Date:

January 1, 2023

Applicable Standards:

All requirements of the State of Maryland and Office of the State Fire Marshal shall apply to the specifications and design requirements, including the following:

- NFPA National Fire Prevention Code (NFPA 1)
- Underwriters Laboratories Inc. (UL), Fire Protection Equipment List
- Maryland Occupational Safety and Health Act
- National Fire Protection Association (NFPA) 10, Standard for the Installation, Maintenance and Use of Portable Fire Extinguishers (latest edition)

General Requirements:

- **Products:**
 - **Fire Extinguishers**
 - **All Dry Chemical ("ABC") Extinguishers Shall Be:** Multipurpose dry chemical stored pressured fire extinguishers, steel cylinder (12-year hydrostatic test interval), all metal valve, handle and syphon tube assembly, readable pressure gauge, red in color, rechargeable, and flexible discharge hose.
 - 10 lb. size: U.L. Rating 4A-60B: C, Amerex Model #441 or approved equal shall be installed in all areas unless specifically specified.
 - 5 lb. size: U.L. Rating 2A-40B: C, Amerex Model #424 or approved equal shall be installed in all lab areas.
 - **All Dry Chemical ("BC") Extinguishers Shall Be:** Class "BC" purpose potassium bicarbonate (Purple K) stored pressure fire extinguishers, steel cylinder (12-year hydrostatic test interval), all metal valve, handle and syphon tube assembly, readable pressure gauge, red in color, rechargeable, and flexible discharge hose.
 - 10 lb. size: U.L. Rating 80B: C, Amerex Model #460 or approved equal shall be installed in all commercial kitchen areas.
 - **Halon:** Halon fire extinguishers will not be permitted.
 - **Fire Extinguisher/Cabinet Locations:**
 - All fire extinguishers located in areas accessible to the public (i.e. corridors, lobbies, public assembly areas and open office areas) shall be placed in a fire extinguisher cabinet.
 - Fire extinguishers are not required in common areas of fully sprinklered residence halls, dormitories and sleeping areas. All remaining areas of those buildings are still required to have fire extinguishers as required by the applicable code.
 - **Fire Extinguisher Cabinets For Recessed Indoor Installations:**
 - Cabinets shall be 18-gauge steel, red baked enamel with red trim mounted in a semi-recessed position. Larsens Model #2712 or approved equal.
 - Designers use of cabinet colors other than RED may be allowed provided that they are lettered with the words "FIRE EXTINGUISHER".
 - Cabinet doors shall be 18-gauge red steel, mounted on continuous piano hinges. The door shall be provided with a tamper-proof lock, two keys, with breakaway acrylic panel. When the panel is broken, the cabinet door shall be opened from the inside by tripping the door lever. Larsens Door Style with lock and "Break-A-Way acrylic panel" or approved equal.

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- Cabinet trim shall be 18 gauges red steel or painted red under the painting division. The return trim for the semi-recessed mounting shall not be less than 1¼ inches. Larsens Semi-recessed type suffix "RK, RL, or RM."
- The minimum interior dimensions shall be 12 inches in width, 27 inches in height, and 8 inches in depth. Larsens Model #2712 or approved equal.
- Cabinet key shall be CH751
- **Fire Extinguisher Cabinets For Surface Mounted Locations And Exterior Areas:**
 - Cabinets shall be weather resistant 20 gauge, white or red baked enamel aluminum with breakaway acrylic panel front with pull handle and aluminum locking bar. Lock shall be tamper proof and supplied with 2 keys. White cabinets shall be lettered in red with the words "FIRE EXTINGUISHER" Larsen's Model #AL 2410 with Break-A-Way acrylic panel or approved equal.
 - Minimum interior dimensions shall be 10 inches in width, 24 inches in height, and 6 inches in depth.
 - Lock key shall be CH751
- **Miscellaneous Accessories:**
 - Wall Mounting Hangers shall be Amerex Model #1007 or approved equal.
 - Indicating Signs for areas where fire extinguishers will not be readily visible (i.e. warehouses, shop areas, large laboratories) shall be red in color with red letters printed inside a white arrow with the word FIRE printed horizontally on top and the word EXTINGUISHER printed vertically below, 4 inches by 18 inches, flexible vinyl with adhesive backing. Seton Model #37809 or approved equal.
- **Execution Fire Extinguisher Cabinets**
 - Fire extinguisher cabinets shall be provided insufficient number and location but shall not exceed the minimum requirements of NFPA Standard 10.
 - Where construction does not allow the installation of recessed cabinets (penthouses, mechanical rooms, etc.), surface mounted cabinets shall be specified. Surface mounted cabinets shall meet the requirements of II-B above, except that they shall be surface mounted type. Larsen's Model 2409SMSM or approved equal).
 - Cabinets are not required in labs areas, shop areas, and any other area as approved by the University. Fire extinguishers not placed in cabinets shall be mounted on hangers as specified in Section 01.89.29 and as indicated in NFPA 10.