



*Member of the FM Global Group*

# **Approval Standard for Hose Houses and Outdoor Hose Cabinets**

**Class Number 2151**

**September 1970**

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# Foreword

The FM Approvals certification mark is intended to verify that the products and services described will meet FM Approvals' stated conditions of performance, safety and quality useful to the ends of property conservation. The purpose of Approval Standards is to present the criteria for FM Approval of various types of products and services, as guidance for FM Approvals personnel, manufacturers, users and authorities having jurisdiction.

Products submitted for certification by FM Approvals shall demonstrate that they meet the intent of the Approval Standard, and that quality control in manufacturing shall ensure a consistently uniform and reliable product. Approval Standards strive to be performance-oriented. They are intended to facilitate technological development.

For examining equipment, materials and services, Approval Standards:

- a) must be useful to the ends of property conservation by preventing, limiting or not causing damage under the conditions stated by the Approval listing; and
- b) must be readily identifiable.

Continuance of Approval and listing depends on compliance with the Approval Agreement, satisfactory performance in the field, on successful re-examinations of equipment, materials, and services as appropriate, and on periodic follow-up audits of the manufacturing facility.

FM Approvals LLC reserves the right in its sole judgment to change or revise its standards, criteria, methods, or procedures.

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## I GENERAL

Hose houses provide well-protected shelters for hydrants, hoses and equipment. Houses are usually located over hydrants in a plant yard.

Outdoor hose cabinets provide well-protected shelters for hoses and equipment. Cabinets are suitable where space is limited, or where the usual hose house would not be desirable. Cabinets can be attached to a building wall, placed on legs or on a foundation near any hydrant.

FM Approval is based on examination and test of production samples, inspection of the manufacturing or quality control facilities, and satisfactory use experience. Particularly considered are functional suitability, adequacy of design and workmanship, uniformity and dependability of production, and effectiveness of quality control.

The characteristics described are important to approval. However, different characteristics are possible and may be considered. If shown to produce equal or superior performance, approval may be granted. Similarly, mere conformity does not assure approval. If unsatisfactory over-all performance may be expected for any reason, approval may be withheld.

## II DESIGN

1. Hose house and cabinet shall have capacity for storing the following minimum equipment:

- Approved 2½ in. woven-jacket, lined hose (200 ft total).
- Approved 1½ in. woven-jacket, lined hose (100 ft total).
- Gated 2½- by 1½- by 1½-in. wye.
- Combination spray, solid stream shutoff nozzles (two) for 2½-in. hose.
- Combination spray, solid stream, shutoff nozzles (one) for 1½-in. hose, or playpipe (one) for 1½-in. shutoff nozzle.
- Adaptor fittings 2½-in. to 1½-in. (two).
- Hydrant wrenches (two).
- Spanners (two) for 1½-in. hose.
- Spanners (four) for 2½-in. hose.

The hose house shall have room for the hydrant in addition to the above equipment.

2. House and cabinet shall be of sound and practical design:

Access to the hydrant and equipment and removal of equipment shall be easy and safe. One man should be able to open the structure and remove equipment.

It shall be possible to lay out 100 ft of stored 2½ in. hose preconnected to an inside hydrant, with ease and without obstructions.

House and cabinet shall:

3. — have ample strength for all expected loads including snow and wind.
4. — have means for safe anchorage.
5. — be weathertight.
6. — have adequate vent openings for air circulation past stored hose.
7. — be resistant to rot, cracking, rust, and preferably, fire.
8. — have doors or lids arrangement for closing and locking, and stops for keeping them in open position.

### III EXAMINATION

Working drawings with material specifications and at least one erected structure will be examined.

#### 1. Strength

##### a. Equipment Load

Shelves and equipment brackets will be subject to twice the expected sustained loads. After a test-load period of 24 hours minimum there shall be no breaks, permanent bends, or other injurious effects.

##### b. Snow Load

The roof shall be able to withstand a load of 20 psf without breaks, permanent bends, or other injurious effects. Adequacy of construction will be determined by structural analysis.

##### c. Wind Load

The structure shall not permanently deform and shall be capable of remaining in place when subjected to a 40 psf wind load acting on its projected area. Adequacy of construction will be determined by structural analysis.

#### 2. Durability

The durability of the structure will be evaluated on the known properties of the building materials.

**3. Practicality**

A fully equipped structure will be examined for practicability of design. Equipment items will be placed in their designated storage places. Hose will be laid out several times as speedily as possible to make sure there is no snagging, binding, or chafing.

Equipment items will be removed several times from their brackets, hooks or shelves to make sure that the storage arrangement is practical.

The hose house will be placed over a hydrant and the hydrant operated with a wrench. There shall be ample and good working space.

**4. Tightness**

The structure will be exposed to a simulated heavy rainfall and checked for water-tightness.

**IV MARKING**

Hose houses and cabinets shall be prominently marked FIRE HOSE in letters at least 3 in. high. A nameplate or decal shall carry the manufacturer's name and model.