



Member of the FM Global Group

Approval Standard for Playpipes

Class Number 1411

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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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INTRODUCTION

Playpipes for 2½ in. hose are used for fire fighting and for measuring water flows. The Underwriter playpipe has an over-all length of 30 in.; the short playpipe has an over-all length of 15 in. Both use the same tip.

FM Approval is based on examination and tests of production samples, inspection of the manufacturing and/or quality control facilities, and satisfactory field experience. Particularly considered are functional suitability, adequacy of design and workmanship, uniformity and dependability of production, effectiveness of quality control, and assurance of service and of replacement parts.

These minimum requirements are guides. Mere conformity does not assure Approval; other considerations may control. Nor is strict conformity necessary; devices having different characteristics may be considered and Approved if shown to be essentially equivalent or superior in performance.

MATERIALS

All metal parts shall be made from corrosion-resistant materials suitable for hose line service.

DESIGN

A. Playpipe

The Underwriter playpipe consisting of a tip, collar, tube, handle, and butt shall have the dimensions shown on the Appendix. The short playpipe differs only in the length of the tube.

All waterways shall have a smooth surface.

B. Tip

The intersection of the straight and tapered sections shall be concentric and have a smooth surface.

The inlet and outlet shall be shaped to resist deformation by impact. The outlet of the waterway shall be recessed to prevent edge damage.

Threads shall be of a design having 12 threads per inch with a 2³/₁₆ in. diameter male or female thread. While these specifications do not fully describe the thread, they are adequate for recognition by the playpipe manufacturers.

C. Collar

The collar shall be recessed to hold a suitable gasket.

Threads shall accept the tip.

D. Tube

The tubs shall have a straight taper. The tube shall be tightly wound with knot free cord and painted.

The tube shall have a length of $24\frac{9}{16}$ in. or $9\frac{9}{16}$ in. for the Underwriter and short playpipes respectively with a plus or minus tolerance of $\frac{1}{8}$ in.

E. Butt

The butt shall be recessed to hold a suitable $2\frac{1}{2}$ in. hose washer.

The threads shall conform to ANSI B 2.3 —“Fire Hose Coupling Screw Threads”. Other threads interchangeable with those already existing in the specific locality may be Approved.

F. Handles

Swivel handles shall be fitted as shown on the Appendix. They shall form a ready grasp for the hands.

MARKINGS

The butt shall be stamped or cast with the name or trade-mark of the manufacturer.

TESTS**A. Hydrostatic**

A sample playpipe will be hydrostatically tested to 500 psig for five (5) minutes. There shall be no failure or permanent deformation as a result of this test.

B. Discharge Coefficient

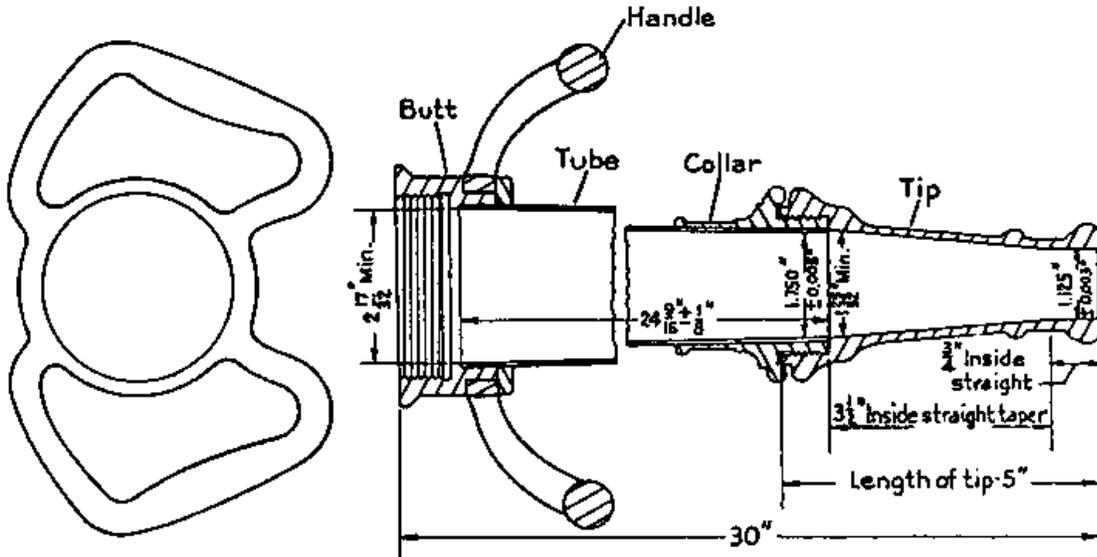
A sample playpipe will be tested to determine the discharge coefficient (Actual Flow ÷ Theoretical Flow). The coefficient shall be 0.95 minimum.

The stream leaving the nozzle shall be solid and without fray.

- C. The sample playpipe will be dropped at least ten times from 4 ft elevation onto a concrete floor. Initial position of the playpipe will vary from vertical with tip down, to horizontal.

There shall be no deformation or rupture which will interfere with the specified flow coefficient and pattern.

APPENDIX



Underwriter Playpipe

Appendix — Underwriter Playpipe.

