

Approval Standard

for

Pressure Reducing Valves

Class Number 1362

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I. INTRODUCTION

- 1.1 Pressure reducing valves are used to control the downstream water pressure in a fire protection system. They may be either direct acting which are operated automatically by inner hydraulic controls, or pilot-operated diaphragm type globe valves.
- 1.2 "Pressure reducing valves" as used in this standard includes the trim and/or associated devices, such as a pressure relief valve, necessary for the satisfactory and reliable operation of the pressure reducing valve.
- 1.3 FM Approval is based upon satisfactory evaluation of the product and the manufacturer in four major areas:
 - 1.3.1 Examination and tests on production samples are performed to evaluate 1) the proper operation and performance of the product as specified by the manufacturer and required by FM Approvals and, as far as practical; 2) the durability and reliability of the product.
 - 1.3.2 An examination of manufacturing facilities and audit of quality control procedures is made to evaluate the manufacturer's ability to produce the product which is examined and tested. These examinations are periodically repeated as part of FM Approvals' product follow-up program.
 - 1.3.3 Periodic re-examination of production samples is done to ensure continued conformity to requirements.
 - 1.3.4 Satisfactory field experience is the final test of approval. Unsatisfactory field experience may result in withdrawal of FM Approval.
- 1.4 FM Approval of pressure reducing valves is limited to their use in 1) systems where the valve can be exercised periodically by water flow and, 2) systems with devices which can automatically relieve excess pressure downstream of the valves.
- 1.5 The requirements of this standard are guidelines reflecting current FM Approval tests and practices. Devices which do not conform to these requirements may be approved if they meet the intent of this standard. Conversely, those that do conform may not be approved if other conditions govern.
- 1.6 Units of Measurement

Units of measurement are English system standard units. These are followed by their approximate equivalents in SI units, enclosed in parentheses. The Appendix lists the selected units for quantities used in this standard. Conversions to SI units are included.

II GENERAL

2.1 Sizes

The standard pressure reducing valve sizes associated with fire protection service are listed below. Others may be considered if there is a demonstrated need for them.

<i>in.</i>	<i>(mm)</i>	<i>in.</i>	<i>(mm)</i>	<i>in.</i>	<i>(mm)</i>
1½	(40)	3	(75)	10	(250)
2	(50)	4	(100)	12	(300)
2½	(65)	6	(150)	14	(350)
		8	(200)		