



Member of the FM Global Group

Examination Standard for Centrifugal Fire Pumps Split-Case Type (Axial or Radial)

Class Number 1311

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Foreword

This standard is intended to verify that the products and services described will meet stated conditions of performance, safety and quality useful to the ends of property conservation. The purpose of standards is to present the criteria for certification of various types of products and services.

Examination in accordance with this standard shall demonstrate compliance and verify that quality control in manufacturing shall ensure a consistently uniform and reliable product.

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1. INTRODUCTION

1.1 Purpose

- 1.1.1 This standard states testing and certification requirements for horizontal (axial) or vertical (radial), split-case type, centrifugal fire pumps that supply water to fire protection systems. These pumps must be available for many years to operate reliably at rated capacities and pressures during emergency fire incidents, despite being idle for extended periods.
- 1.1.2 Testing and certification criteria may include, but are not limited to, performance requirements, marking requirements, examination of manufacturing facility(ies), audit of quality assurance procedures, and a surveillance audit program.

1.2 Scope

- 1.2.1 This standard encompasses the design and performance requirements for horizontal (axial) or vertical (radial), split-case type, centrifugal fire pumps for use in fire protection systems. Certification is limited to horizontal (axial) or vertical (radial), split-case type, centrifugal pumps which have a rated pressure of at least 40 psi (275 kPa). In cases where metric sized centrifugal fire pumps are to be examined for certification, test criteria comparable to the United States equivalent size shall be used.
- 1.2.2 This standard encompasses the requirements for single and multistage split-case fire pumps.
- 1.2.3 Requirements for other types of centrifugal fire pumps are detailed in the following examination standards:

<i>Class</i>	<i>Centrifugal Pump Type</i>
1310	Multi Stage, Multi Outlet
1312	Vertical Shaft Turbine Type
1319	Horizontal End-Suction Type
1370	Vertical Turbine Barrel Type
1371	In-Line Type

- 1.2.4 Requirements for other major components in the pump package are detailed in the following examination standards:

<i>Class</i>	<i>Equipment</i>
1046	Fire Pump Flowmeter Systems
1321/1323	Controllers for Electric Motor Driven and Diesel Engine Driven Fire Pumps
1333	Diesel Engine Fire Pump Drivers
1336	Fire Pump Couplings and Flexible Connecting Shafts for Fire Protection Service
1359	Trim Water Pressure Relief Valves
2311	Pressure Gauges for Fire Protection Systems

1.3 Basis for Requirements

- 1.3.1 The requirements of this standard are based on experience, research and testing, and/or the standards of other organizations. The advice of manufacturers, users, trade associations, jurisdictions and/or loss control specialists was also considered.
- 1.3.2 The requirements of this standard reflect tests and practices used to examine characteristics of horizontal (axial) or vertical (radial), split-case type, centrifugal fire pumps for the purpose of obtaining certification. Horizontal (axial) or vertical (radial), split-case type, centrifugal fire pumps having characteristics not anticipated by this standard may be certified if performance equal, or superior, to that required by this standard is demonstrated.