Australian Standard™

Fixed fire protection installations—Pumpset systems

Standards Australia

This Australian Standard was prepared by Committee FP-008, Fire Service Pumps. It was approved on behalf of the Council of Standards Australia on 21 June 2002 and published on 2 September 2002.

The following are represented on Committee FP-008:

Association of Consulting Engineers, Australia

Association of Hydraulic Services Consultants, Australia

Australasian Fire Authorities Council

Australasian Railways Association

Australian Chamber of Commerce and Industry

Australian Pump Manufacturers Association

Fire Protection Association, Australia

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PREFACE

This Standard was prepared by the Standards Australia Committee FP-008, Fire Service Pumps, to supersede AS 2941—1995.

The objective of the Standard is to provide regulatory authorities and fire protection system designers with requirements for pumpset systems to suit various types of fire protection systems such that a reasonable degree of protection for life and property from fire may be achieved. These requirements are based on sound engineering principles, test data and field experience.

Although the installation of a pumphouse is not a requirement of this Standard, the Committee has considered the fire pumpset and its ancillary equipment as being ideally located in a pumphouse. Requirements are established for the selection, installation and operation of fire pumps, pump drivers and associated equipment. However, the Standard does not consider the number, disposition or types of driver considered appropriate for a given fixed fire protection system. The term ‘driver’ is used in lieu of the term ‘engine’ or ‘motor’.

The committee does not consider the initiation of the starting sequence outside the pumphouse to be within the scope of this Standard. Instead, it has considered the processing of signals entering the pumphouse.

The Standard provides minimum performance requirements for pumpsets including motors, engines, fire pump controllers, batteries and related ancillaries. The Standard requires that pumpsets be shop tested as an assembly, that is, the pump driver and fire pump controller are to be checked as a working combination (and appropriate test certification issued) prior to dispatch from the pumpset assembler’s works. Further testing is required following final installation on site, and the Standard requires the incorporation of a flow-measuring device at each pumpset, unless provided elsewhere, to facilitate commissioning and subsequent periodic testing.

The Standard requires that each pump be provided with circulation relief to protect the pump from damage when exposed to extended periods of operation at or near shut-off head. It also requires that some pumps be provided with a pressure-relief/flow control valve to protect downstream piping from overpressurization and the pump against suction and discharge recirculation. Circulation and pressure-relief flow control requirements are addressed in Section 3.

This edition includes requirements for residential sprinkler system and domestic sprinkler system pumpsets.

Maintenance requirements for fire pumpsets are given in AS 1851.14, *Maintenance of fire protection equipment*, Part 14: *Pumpset systems*.

The symbols used in this Standard comply with those given in HB20, *Graphical symbols for fire protection drawings,* and have been developed from ISO Standards. The typical illustrations are in diagrammatic form only.

The terms ‘normative’ and ‘informative’ have been used in this Standard to define the application of the appendix to which they apply. A ‘normative’ appendix is an integral part of a Standard, whereas an ‘informative’ appendix is only for information and guidance.

This Standard incorporates commentary on some of the clauses. The commentary directly follows the relevant clause, is designated by ‘C’ preceding the clause number and is printed in italics in a box. The commentary is for information and guidance.

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