



High pressure water jetting systems

Part 1: Safe operation and maintenance

STANDARDS
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- Australasian High Pressure Water Jetting Association, Australia
 - Australasian High Pressure Water Jetting Association, New Zealand
 - Australian Chamber of Commerce and Industry
 - Australian Industry Group
 - Bureau of Steel Manufacturers of Australia
 - New Zealand Council of Trade Unions
 - Royal Australian Chemical Institute
 - Safe Work Australia
 - WorkCover New South Wales
-

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Standards Australia wishes to acknowledge the participation of the expert individuals that contributed to the development of this Standard through their representation on the Committee and through the public comment period.

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Australian Standard®

High pressure water jetting systems

Part 1: Safe operation and maintenance

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee SF-043, High Pressure Water Safety, to supersede AS/NZS 4233.1:1999, *High pressure water (hydro) jetting systems, Part 1: Guidelines for safe operation and maintenance*.

This Standard incorporates Amendment No. 1 (September 2020). The changes required by the Amendment are indicated in the text by a marginal bar and amendment number against the clause, note, table, figure or part thereof affected.

A1 | Amendment No. 1 to this Standard was prepared by the Australian members of the Joint Standards Australia/Standards New Zealand Committee SF-043, High Pressure Water Safety. As a consequence of Amendment No. 1, which is published as an Australian-only amendment, this Standard will be redesignated from AS/NZS 4233.1 to AS 4233.1.

The objective of the revision is to reflect current industry best practice and the technological advances since the publication of the previous edition. The revision broadly aligns with, but is not equivalent to EN 1829-1:2010, *High pressure water jet machines—Safety requirements, Part 1: Machines* and EN 1829-2:2008, *High pressure water jet machines—Safety requirements, Part 2: Hoses, hose lines and connectors*.

The principal differences between this and the previous edition are as follows:

- (a) Changes in technology including personal protective equipment, electronic control systems and hold-to-active devices.
- (b) Machinery including remote and automated.
- (c) Training including new units of competences for high pressure water jetting.
- (d) Systems of work including maximum reaction force and mechanically held devices.

Additionally, much of the informative text has been made normative.

This Standard is the first of a series of Standards applicable to high pressure water jetting.

A1 | This series comprises the following:
AS 4233.1, *High pressure water jetting systems, Part 1: Safe operation and maintenance* (this Standard)

AS 4233.2, *High pressure water jetting systems, Part 2: Construction and performance*

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.

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STANDARDS AUSTRALIA

Australian Standard
High pressure water jetting systems

Part 1: Safe operation and maintenance

SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

This Standard provides requirements and guidance for the operation and maintenance of water jetting equipment. It describes methods for eliminating hazards or minimizing risks associated with high pressure water jetting.

This Standard applies to high pressure water jetting systems with an output capability greater than 800 bar litres per minute and less than 5600 bar litres per minute (identified as Class A) and systems with an output capability in excess 5600 bar litres per minute (identified as Class B).

This Standard applies to:

- (a) High pressure water jetting systems pressurized by positive displacement pumps with an output capability greater than 800 bar litres per minute.
- (b) High pressure water jetting operations carried out at pressures above 800 bar litres per minute and includes jetting operations involving the use of additives and abrasives.
- (c) Water jetting operations below 800 bar litres per minute where there is a foreseeable risk of injury to operators.

NOTE: The guidance provided in this Standard may also be used for any water jetting operation.

1.2 OBJECTIVE

The objective of this Standard is to provide users of water jetting systems with requirements and guidance concerning safe operating practices to protect and safeguard equipment users and other persons who may be in the vicinity of high pressure water jetting operations.

1.3 APPLICATION

A1 | This Standard shall be read in conjunction with AS 4233.2.

1.4 GENERAL REQUIREMENTS

The following requirements shall be observed to protect persons against the harmful effects of hazards associated with water jetting:

- (a) Before commencing any water jetting operations, steps shall be taken to ensure that all hazards likely to affect the safety of persons operating equipment or working in the vicinity of water jetting operations are eliminated or minimized to as low as reasonably practicable.