



High pressure water jetting systems

Part 1: Safe operation and maintenance



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The following are represented on Committee SF-043:

- 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 competencies 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.

CONTENTS

	<i>Page</i>
SECTION 1 SCOPE AND GENERAL	
1.1 SCOPE.....	5
1.2 OBJECTIVE.....	5
1.3 APPLICATION	5
1.4 GENERAL REQUIREMENTS.....	5
1.5 NORMATIVE REFERENCES	6
1.6 TERMS AND DEFINITIONS	7
SECTION 2 GENERAL REQUIREMENTS	
2.1 GENERAL.....	11
2.2 LIMITATION AND USE	11
2.3 SAFEGUARDS	11
SECTION 3 INSPECTION AND MAINTENANCE	
3.1 GENERAL.....	13
3.2 MAINTENANCE AND INSPECTION	13
3.3 SERVICING	15
3.4 REPAIRS.....	15
3.5 TOOLS	15
3.6 COMPATIBILITY.....	15
3.7 ELECTRICAL EQUIPMENT.....	15
3.8 MAINTENANCE RECORD.....	16
3.9 FROST PROTECTION.....	16
SECTION 4 PERSONAL PROTECTIVE EQUIPMENT	
4.1 GENERAL.....	17
4.2 HEAD PROTECTION.....	17
4.3 EYE AND FACE PROTECTION.....	17
4.4 BODY PROTECTION.....	17
4.5 HAND PROTECTION	17
4.6 FOOT AND LOWER LEG PROTECTION	18
4.7 HEARING PROTECTION	18
4.8 RESPIRATORY PROTECTION	18
SECTION 5 PRE-OPERATIONAL PROCEDURES	
5.1 PLANNING.....	19
5.2 CHECKLIST	19
5.3 SYSTEM CONTROL	19
5.4 WORK AREAS	19
5.5 SET-UP.....	20

SECTION 6 OPERATIONAL PROCEDURES	
6.1	GENERAL..... 21
6.2	WORK AREAS 21
6.3	PERSONAL PROTECTIVE EQUIPMENT (PPE) 21
6.4	OPERATIONS..... 21
6.5	PRESSURIZING SYSTEMS 23
6.6	OPERATING PERSONNEL 23
6.7	HAND-HELD JETTING GUN OPERATIONS 25
6.8	LANCING, PIPE AND DRAIN CLEANING 25
SECTION 7 OPERATIONAL TRAINING	
7.1	QUALIFIED OPERATORS 27
7.2	TRAINING CLASS A 27
7.3	TRAINING CLASS B 27
7.4	REFRESHER TRAINING 28
SECTION 8 PERMANENT CLEANING AREAS	
8.1	GENERAL..... 29
8.2	ENCLOSURE..... 29
8.3	ACCESS 29
8.4	HAZARDS 29
8.5	ELECTRICAL HAZARDS..... 29
8.6	WASTE COLLECTION 29
8.7	DISPOSAL OF HAZARDOUS MATERIAL WASTE 29
SECTION 9 INCIDENT AND ACCIDENT REPORTING FOR COMMERCIAL AND INDUSTRIAL APPLICATIONS	
9.1	REPORTING 30
9.2	PERSONAL INJURIES 30
9.3	MEDICAL REQUIREMENT 30
9.4	IMMEDIATE FIRST AID 30
9.5	MEDICAL ALERT CARD 30
APPENDICES	
A	PRESSURE FLOW DIAGRAM 31
B	INSPECTION, CARE AND MAINTENANCE OF HOSE ASSEMBLIES 32
C	PRE-SERVICE AND OPERATIONAL CHECKLIST FOR HIGH PRESSURE WATER JETTING 34
D	HAND SIGNALS 36
E	INSPECTION AND TESTING OF HIGH PRESSURE WATER JETTING SYSTEM HOSE ASSEMBLIES 38
BIBLIOGRAPHY 42	

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.