

AS ISO 9906:2018
ISO 9906:2012
(Incorporating Amendment No. 1)



Rotodynamic pumps — Hydraulic performance acceptance tests — Grades 1, 2 and 3



AS ISO 9906:2018

This Australian Standard® was prepared by ME-030, Pumps. It was approved on behalf of the Council of Standards Australia on 16 January 2018.

This Standard was published on 22 February 2018.

The following are represented on Committee ME-030:

- Australasian Fire and Emergency Service Authorities Council
- Engineers Australia
- Fire Protection Association Australia
- Irrigation Australia
- Master Plumbers Australia
- Pump Industry Australia
- Water Services Association of Australia

This Standard was issued in draft form for comment as DR AS ISO 9906:2017.

Keeping Standards up-to-date

Ensure you have the latest versions of our publications and keep up-to-date about Amendments, Rulings, Withdrawals, and new projects by visiting:

www.standards.org.au

Rotodynamic pumps — Hydraulic performance acceptance tests — Grades 1, 2 and 3

Originated as AS CB9—1931.
Previous editions AS 2417.1—1980, AS 2417.2—1980 and AS 2417.3—1980.
AS 2417.1—1980, AS 2417.2—1980 and AS 2417.3—1980 revised, amalgamated and
redesignated as AS 2417—2001.
Revised and redesignated as AS ISO 9906:2018.
Reissued incorporating Amendment No. 1 (March 2022).

COPYRIGHT

© ISO 2022 — All rights reserved
© Standards Australia Limited 2022

All rights are reserved. No part of this work may be reproduced or copied in any form or by any means, electronic or mechanical, including photocopying, without the written permission of the publisher, unless otherwise permitted under the Copyright Act 1968 (Cth).

Preface

This Standard was prepared by the Standards Australia Committee ME-030, Pumps, to supersede AS 2417—2001, *Rotodynamic pumps—Hydraulic performance acceptance tests—Grades 1 and 2*.

The objective of this Standard is to specify hydraulic performance tests for customers' acceptance of rotodynamic pumps (centrifugal, mixed flow and axial pumps). It is intended to be used for pump acceptance testing at pump test facilities, such as manufacturers' pump test facilities or laboratories.

This Standard is identical with, and has been reproduced from, ISO 9906:2012, *Rotodynamic pumps — Hydraulic performance acceptance tests — Grades 1, 2 and 3*.

As this document has been reproduced from an International Standard, the following applies:

- (a) In the source text 'this International Standard' should read 'this Australian Standard'.
- (b) A full point substitutes for a comma when referring to a decimal marker.

Australian or Australian/New Zealand Standards that are identical adoptions of international normative references may be used interchangeably. Refer to the online catalogue for information on specific Standards.

The terms 'normative' and 'informative' are used in Standards to define the application of the appendices or annexes to which they apply. A 'normative' appendix or annex is an integral part of a Standard, whereas an 'informative' appendix or annex is only for information and guidance.

Contents

Preface	ii
Foreword	v
Introduction	vi
1 Scope	1
2 Normative references	1
3 Terms, definitions, symbols and subscripts	1
3.1 Terms and definitions.....	1
3.1.1 General terms.....	1
3.2 Terms relating to quantities.....	3
3.3 Symbols and subscripts.....	9
4 Pump measurements and acceptance criteria	10
4.1 General.....	10
4.2 Guarantees.....	11
4.3 Measurement uncertainty.....	11
4.3.1 General.....	11
4.3.2 Fluctuations.....	12
4.3.3 Statistical evaluation of overall measurement uncertainty.....	12
4.4 Performance test acceptance grades and tolerances.....	15
4.4.1 General.....	15
4.4.2 Tolerances for pumps with an input power of 10 kW and below.....	16
4.4.3 Evaluation of flow and head.....	16
4.4.4 Evaluation of efficiency or power.....	18
4.5 Default test acceptance grades for pump application.....	21
5 Test procedures	22
5.1 General.....	22
5.2 Date of testing.....	22
5.3 Test programme.....	22
5.4 Testing equipment.....	22
5.5 Records and report.....	23
5.6 Test arrangements.....	23
5.7 Test conditions.....	23
5.7.1 Test procedure.....	23
5.7.2 Speed of rotation during test.....	23
5.8 NPSH tests.....	24
5.8.1 General.....	24
5.8.2 NPSH test types.....	24
6 Analysis	26
6.1 Translation of the test results to the guarantee conditions.....	26
6.1.1 Translation of the test results into data based on the specified speed of rotation and density.....	26
6.1.2 Test carried out with NPSHA different from that guaranteed.....	27
6.1.3 Performance curve.....	27
6.2 Obtaining specified characteristics.....	27
6.2.1 Reduction of impeller diameter.....	27
6.2.2 Requirement for retesting after reducing impeller diameters.....	27
Annex A (normative) Test arrangements	28
Annex B (informative) NPSH test arrangements	37
Annex C (informative) Calibration intervals	41
Annex D (informative) Measurement equipment	42

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

-
- [Looking for additional Standards? Visit Intertek Inform Infostore](#)
 - [Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation](#)
-