



SLOVENSKI STANDARD
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SIST EN 60045-1:2001

Parne turbine - 1. del: Specifikacije (IEC 60045-1:2020)

Steam turbines - Part 1: Specifications (IEC 60045-1:2020)

Dampfturbinen - Teil 1: Anforderungen (IEC 60045-1:2020)

Turbines à vapeur - Partie 1: Spécifications (IEC 60045-1:2020)

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Ta slovenski standard je istoveten z: EN IEC 60045-1:2020

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ICS:

27.040	Plinske in parne turbine. Parni stroji	Gas and steam turbines. Steam engines
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EUROPEAN STANDARD

EN IEC 60045-1

NORME EUROPÉENNE

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Supersedes EN 60045-1:1993 and all of its amendments
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English Version

Steam turbines - Part 1: Specifications (IEC 60045-1:2020)

Turbines à vapeur - Partie 1: Spécifications
(IEC 60045-1:2020)Dampfturbinen - Teil 1: Anforderungen
(IEC 60045-1:2020)

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European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

EN IEC 60045-1:2020 (E)**European foreword**

The text of document 5/231/FDIS, future edition 2 of IEC 60045-1, prepared by IEC/TC 5 "Steam turbines" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 60045-1:2020.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2021-03-17
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2023-06-17

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In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60300-3-3	NOTE	Harmonized as EN 60300-3-3
IEC 60812	NOTE	Harmonized as EN IEC 60812
IEC 61025	NOTE	Harmonized as EN 61025
IEC 61326 (series)	NOTE	Harmonized as EN IEC 61326 (series)
IEC 61508 (series)	NOTE	Harmonized as EN 61508 (series)
IEC 61508-5:2010	NOTE	Harmonized as EN 61508-5:2010 (not modified)
IEC 61511 (series)	NOTE	Harmonized as EN 61511 (series)
IEC 61511-1	NOTE	Harmonized as EN 61511-1
IEC 61511-3:2016	NOTE	Harmonized as EN 61511-3:2017 (not modified)
IEC 61882	NOTE	Harmonized as EN 61882
IEC 62381	NOTE	Harmonized as EN 62381
IEC 62541 (series)	NOTE	Harmonized as EN 62541 (series)
IEC 62682	NOTE	Harmonized as EN 62682
ISO/IEC 15408 (series)	NOTE	Harmonized as EN ISO/IEC 15408 (series)

IEC/IEEE 82079-1	NOTE	Harmonized as EN IEC/IEEE 82079-1
ISO 2553	NOTE	Harmonized as EN ISO 2553
ISO 3834 (series)	NOTE	Harmonized as EN ISO 3834 (series)
ISO 3834-1:2005	NOTE	Harmonized as EN ISO 3834-1:2005 (not modified)
ISO 5817	NOTE	Harmonized as EN ISO 5817
ISO 9241 (series)	NOTE	Harmonized as EN ISO 9241 (series)
ISO 9606 (series)	NOTE	Harmonized as EN ISO 9606 (series)
ISO 9692 (series)	NOTE	Harmonized as EN ISO 9692 (series)
ISO 9712	NOTE	Harmonized as EN ISO 9712
ISO 11970	NOTE	Harmonized as EN ISO 11970
ISO 12932	NOTE	Harmonized as EN ISO 12932
ISO 13857	NOTE	Harmonized as EN ISO 13857
ISO 13916	NOTE	Harmonized as EN ISO 13916
ISO 13919-1	NOTE	Harmonized as EN ISO 13919-1
ISO 14731	NOTE	Harmonized as EN ISO 14731
ISO 14732	NOTE	Harmonized as EN ISO 14732
ISO 15613	NOTE	Harmonized as EN ISO 15613
ISO 15614 (series)	NOTE	Harmonized as EN ISO 15614 (series)
ISO 17659	NOTE	Harmonized as EN ISO 17659
ISO 17663	NOTE	Harmonized as EN ISO 17663

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EN IEC 60045-1:2020 (E)

Annex ZA

(normative)

Normative references to international publications with their corresponding European publications

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60034-3	-	Rotating electrical machines - Part 3: Specific requirements for synchronous generators driven by steam turbines or combustion gas turbines and for synchronous compensators	-	-
IEC 60079	series	Explosive atmospheres	-	-
IEC 60204-1	-	Safety of machinery - Electrical equipment of machines - Part 1: General requirements	EN 60204-1	-
IEC 60953	series	Rules for steam turbine thermal acceptance tests	-	-
IEC 61000-6-2	-	Electromagnetic compatibility (EMC) - Part 6-2: Generic standards - Immunity standard for industrial environments	EN IEC 61000-6-2	-
IEC 61000-6-4	-	Electromagnetic compatibility (EMC) - Part 6-4: Generic standards - Emission standard for industrial environments	EN IEC 61000-6-4	-
IEC 61064	-	Acceptance tests for steam turbine speed control systems	EN 61064	-
ISO 1940	-	Mechanical vibration - Balance quality requirements for rotors in a constant (rigid) state	-	-
ISO 7919-3	-	Mechanical vibration - Evaluation of mechanical vibration by measurements on rotating shafts - Part 3: Coupled industrial machines	-	-

ISO 10494	-	Turbines and turbine sets - measurement of emitted airborne noise - engineering/survey method	-	-
ISO 11342	-	Mechanical vibration - Methods and criteria for the mechanical balancing of flexible rotors	-	-
ISO 10816-3	-	Mechanical vibration - Evaluation of machine vibration by measurements on non-rotating parts - Part 3: Industrial machines with nominal power above 15 kW and nominal speeds between 120 r/min and 15 000 r/min when measured in situ	-	-
ISO 12100	2010	Safety of machinery - General principles for design - Risk assessment and risk reduction	EN ISO 12100	2010
ISO 13850	-	Safety of machinery - Emergency stop function - Principles for design	EN ISO 13850	-
ISO 20816-1	-	Mechanical vibration - Measurement and evaluation of machine vibration - Part 1: General guidelines	-	-
ISO 20816-2	-	Mechanical vibration - Measurement and evaluation of machine vibration - Part 2: Land-based gas turbines, steam turbines and generators in excess of 40 MW, with fluid-film bearings and rated speeds of 1 500 r/min, 1 800 r/min, 3 000 r/min and 3 600 r/min	-	-
ISO 21940-31	-	Mechanical vibration - Rotor balancing - Part 31: Susceptibility and sensitivity of machines to unbalance	-	-

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INTERNATIONAL STANDARD

NORME INTERNATIONALE

Steam turbines – iTeh STANDARD PREVIEW
Part 1: Specifications (standards.iteh.ai)

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Partie 1: Spécifications [SIST EN IEC 60045-1:2020](https://standards.iteh.ai/catalog/standards/sist/68c3d785-6365-4bc8-8f3c-588a6eb49fa8/sist-en-iec-60045-1-2020)
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STEAM TURBINES –**Part 1: Specifications****FOREWORD**

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International Standard IEC 60045-1 has been prepared by IEC technical committee 5: Steam turbines.

This second edition cancels and replaces the first edition published in 1991. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) Scope clarification and boundaries of applicability;
- b) general update to state-of-the-art technology;
- c) integration of product safety: Clause 5;
- d) integration of automation, incorporating the former annex on electronic governors: Clause 11;
- e) Informative Annex A on welding added.