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## **Vattenturbiner, magasineringspumpar och pumpturbiner – Upprustning och prestandaförbättring**

*Hydraulic turbines, storage pumps and pump-turbines –  
Rehabilitation and performance improvement*

Som svensk standard gäller europastandarden EN 62256:2008. Den svenska standarden innehåller den officiella engelska språkversionen av EN 62256:2008.

### **Nationellt förord**

Europastandarden EN 62256:2008

består av:

- **europastandardens ikraftsättningsdokument**, utarbetat inom CENELEC
- **IEC 62256, First edition, 2008 - Hydraulic turbines, storage pumps and pump-turbines - Rehabilitation and performance improvement**

utarbetad inom International Electrotechnical Commission, IEC.

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ICS 27.140

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English version

**Hydraulic turbines, storage pumps and pump-turbines -  
Rehabilitation and performance improvement**  
(IEC 62256:2008)

Turbines hydrauliques, pompes  
d'accumulation et pompes turbines -  
Réhabilitation et amélioration  
des performances  
(CEI 62256:2008)

Wasserturbinen, Speicherpumpen  
und Pumpturbinen -  
Modernisierung und Verbesserung  
der Leistungseigenschaften  
(IEC 62256:2008)

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Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CENELEC member.

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**CENELEC**

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

**Central Secretariat: rue de Stassart 35, B - 1050 Brussels**

## Foreword

The text of document 4/231/FDIS, future edition 1 of IEC 62256, prepared by IEC TC 4, Hydraulic turbines, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 62256 on 2008-04-16.

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  - latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2011-05-01
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## Endorsement notice

The text of the International Standard IEC 62256:2008 was approved by CENELEC as a European Standard without any modification.

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

- |           |  |
|-----------|--|
| IEC 60041 | NOTE Harmonized as EN 60041:1994 (modified).       |
| IEC 60193 | NOTE Harmonized as EN 60193:1999 (not modified).   |
| IEC 60609 | NOTE Harmonized in EN 60609 series (not modified). |
| IEC 60994 | NOTE Harmonized as EN 60994:1992 (not modified).   |
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## **HYDRAULIC TURBINES, STORAGE PUMPS AND PUMP-TURBINES – REHABILITATION AND PERFORMANCE IMPROVEMENT**

### **1 Scope and object**

The scope of this International Standard covers turbines, storage pumps and pump-turbines of all sizes and of the following types:

- Francis;
- Kaplan;
- propeller;
- Pelton (turbines only);
- Bulb.

Wherever turbines or turbine components are referred to in the text of this guide, they shall be interpreted also to mean the comparable units or components of storage pumps or pump-turbines as the case requires.

The Guide also identifies without detailed discussion, other powerhouse equipment that could affect or be affected by a turbine, storage pump, or pump-turbine rehabilitation.

The object of this guide is to assist in identifying, evaluating and executing rehabilitation and performance improvement projects for hydraulic turbines, storage pumps and pump-turbines. This guide can be used by owners, consultants, and suppliers to define:

- needs and economics for rehabilitation and performance improvement;
- scope of work;
- specifications;
- evaluation of results.

The Guide is intended to be:

- an aid in the decision process;
- an extensive source of information on rehabilitation;
- an identification of the key milestones in the rehabilitation process;
- an identification of the points that should be addressed in the decision processes.

The Guide is not intended to be a detailed engineering manual nor a maintenance guide.