



**SLOVENSKI STANDARD  
SIST EN IEC 63132-4:2020**

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**Navodilo za postopke vgradnje in tolerance hidroelektričnih strojev - 4. del:  
Vertikalna Kaplanova ali propelerske turbine (IEC 63132-4:2020)**

Guidance for installation procedures and tolerances of hydroelectric machines - Part 4:  
Vertical Kaplan or propeller turbines (IEC 63132-4:2020)

Leitfaden für Installations-Prozeduren und -Toleranzen von hydroelektrischen Maschinen  
- Teil 4: Vertikale Kaplan- oder Propellerturbinen (IEC 63132-4:2020)

Guide des procédures et tolérances d'installation des machines hydroélectriques - Partie  
4: Turbine Kaplan ou à hélice verticale (IEC 63132-4:2020)

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EUROPEAN STANDARD

EN IEC 63132-4

NORME EUROPÉENNE

EUROPÄISCHE NORM

June 2020

ICS 27.140

English Version

Guidance for installation procedures and tolerances of  
hydroelectric machines - Part 4: Vertical Kaplan or propeller  
turbines  
(IEC 63132-4:2020)

Lignes directrices des procédures et tolérances  
d'installation des machines hydroélectriques - Partie 4:  
Turbine Kaplan ou à hélice verticales  
(IEC 63132-4:2020)

Leitfaden für Installations-Prozeduren und -Toleranzen von  
hydroelektrischen Maschinen - Teil 4: Vertikale Kaplan-  
oder Propellerturbinen  
(IEC 63132-4:2020)

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Europäisches Komitee für Elektrotechnische Normung

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

**EN IEC 63132-4:2020 (E)****European foreword**

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- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2021-03-02
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2023-06-02

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

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IEC 63132-3	NOTE	Harmonized as EN IEC 63132-3



IEC 63132-4

Edition 1.0 2020-04

# INTERNATIONAL STANDARD

## NORME INTERNATIONALE



**Guidance for installation procedures and tolerances of hydroelectric machines –  
Part 4: Vertical Kaplan or propeller turbines**

**Lignes directrices des procédures et tolérances d'installation des machines  
hydroélectriques –  
Partie 4: Turbines Kaplan ou à hélice verticales**

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## CONTENTS

FOREWORD.....	4
1 Scope.....	6
2 Normative references .....	6
3 Terms and definitions .....	6
4 Installation flowchart.....	6
4.1 Turbine embedded parts .....	6
4.2 Turbine mechanical parts .....	8
5 Steps.....	10
5.1 Turbine embedded parts .....	10
5.1.1 Step 1: Benchmarks set-up.....	10
5.1.2 Step 2: Primary embedded pipes and draft tube liner foundation installation .....	10
5.1.3 Step 3: Draft tube liner foundation embedment .....	10
5.1.4 Step 4: Draft tube liner foundation and workspace verification .....	11
5.1.5 Step 5: Handing over to installation .....	11
5.1.6 Step 6: Draft tube liner supports installation .....	11
5.1.7 Step 7: Draft tube liner installation.....	12
5.1.8 Step 8: Secondary embedded pipes installation around the draft tube liner.....	14
5.1.9 Step 9: Handing over to concreting phase.....	14
5.1.10 Step 10: Draft tube liner embedment .....	15
5.1.11 Step 11: Concrete voids testing .....	15
5.1.12 Step 12: Draft tube liner grout injection.....	16
5.1.13 Step 13: Handing over to installation.....	16
5.1.14 Step 14: Draft tube liner dimensional inspection after embedment .....	16
5.1.15 Step 15: Draft tube cone installation .....	17
5.1.16 Step 16: Stay ring supports installation.....	17
5.1.17 Step 17: Stay ring installation .....	17
5.1.18 Step 18: Pit liner(s) and/or servomotor base plates installation .....	19
5.1.19 Step 19: Secondary embedded pipes installation around the semi-spiral case .....	19
5.1.20 Step 20: Handing over to concreting phase.....	20
5.1.21 Step 21: Embedment of stay ring and concrete semi-spiral case construction.....	20
5.1.22 Step 22: Embedment up to generator floor.....	20
5.1.23 Step 23: Stay ring grout injection .....	21
5.1.24 Step 24: Handing over to installation .....	21
5.1.25 Step 25: Dimensional inspection of stay ring after embedment .....	21
5.1.26 Step 26: Stay ring machining .....	22
5.1.27 Step 27: Discharge ring and bottom ring installation .....	22
5.1.28 Step 28: Handing over to concreting phase.....	23
5.1.29 Step 29: Discharge ring embedment .....	23
5.1.30 Step 30: Handing over to installation .....	24
5.1.31 Step 31: Corrosion protection for embedded parts .....	24
5.1.32 Step 32: Turbine embedded parts complete.....	24
5.1.33 Step 33: Turbine mechanical parts Installation.....	24
5.2 Turbine mechanical parts.....	24

5.2.1	Step 1: Turbine embedded parts complete.....	24
5.2.2	Step 2: Turbine runner support structure installation.....	24
5.2.3	Step 3-1: Turbine runner assembly.....	25
5.2.4	Step 3: Turbine runner installation.....	25
5.2.5	Step 4: Guide vanes installation.....	26
5.2.6	Step 5: Outer head cover installation.....	26
5.2.7	Step 6: Turbine shaft installation.....	27
5.2.8	Step 7: Turbine runner and shaft coupling.....	27
5.2.9	Step 8: Inner head cover installation.....	27
5.2.10	Step 9: Shaft seal housing assembly.....	28
5.2.11	Step 10: Guide bearing housing assembly.....	29
5.2.12	Step 11: Regulating ring installation.....	29
5.2.13	Step 12: Servomotors installation.....	29
5.2.14	Step 13: Guide vanes links and levers installation.....	30
5.2.15	Step 14: Turbine shaft free.....	30
5.2.16	Step 15: Generator installation.....	31
5.2.17	Step 16: Turbine and generator shafts coupling.....	31
5.2.18	Step 17: Unit alignment.....	32
5.2.19	Step 18: Kaplan oil head installation.....	33
5.2.20	Step 19: Shaft seal final installation.....	33
5.2.21	Step 20: Turbine guide bearing assembly and adjustment.....	34
5.2.22	Step 21: Guide vane apparatus final adjustment.....	34
5.2.23	Step 22: Remaining turbine parts installation completion.....	34
5.2.24	Step 23: Cleaning, painting and inspection before initial tests.....	35
5.2.25	Step 24: Turbine mechanical parts complete.....	35
5.2.26	Step 25: Commissioning.....	35
	Bibliography.....	36
	Figure 1 – Generic installation flowchart – Vertical Kaplan or propeller turbine embedded parts.....	7
	Figure 2 – Generic installation flowchart – Vertical Kaplan or propeller turbine mechanical parts.....	10
	Figure 3 – Draft tube liner installation.....	13
	Figure 4 – Draft tube liner embedment plan.....	15
	Figure 5 – Stay ring installation.....	19
	Figure 6 – Discharge ring and bottom ring installation.....	23
	Figure 7 – Outer head cover alignment.....	26
	Figure 8 – Inner head cover installation.....	28
	Figure 9 – Turbine shaft free.....	31
	Table 1 – Concentricity and junction.....	14
	Table 2 – Stay-ring elevation, level and pararellism.....	18
	Table 3 – Level.....	22
	Table 4 – Concentricity, level and elevation.....	30
	Table 5 – Runner measurements.....	32
	Table 6 – Shaft measurements.....	33

## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**GUIDANCE FOR INSTALLATION PROCEDURES AND  
TOLERANCES OF HYDROELECTRIC MACHINES –****Part 4: Vertical Kaplan or propeller turbines**

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International Standard IEC 63132-4 has been prepared by IEC technical committee 4: Hydraulic turbines.

The text of this International Standard is based on the following documents:

FDIS	Report on voting
4/383/FDIS	4/393/RVD

Full information on the voting for the approval of this International Standard can be found in the report on voting indicated in the above table.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.



A list of all parts in the IEC 63132 series, published under the general title *Guidance for installation procedures and tolerances of hydroelectric machines*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under "<http://webstore.iec.ch>" in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

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# GUIDANCE FOR INSTALLATION PROCEDURES AND TOLERANCES OF HYDROELECTRIC MACHINES –

## Part 4: Vertical Kaplan or propeller turbines

### 1 Scope

The purpose of this this part of IEC 63132 is to establish, in a general way, suitable procedures and tolerances for the installation of a vertical Kaplan or propeller turbine. This document presents a typical assembly and whenever the word “turbine” is used in this document, it refers to a vertical Kaplan or propeller turbine. There are many possible ways to assemble a unit. The size of the machine, design of the machine, layout of the powerhouse or delivery schedule of the components are some of the elements that could result in additional steps, the elimination of some steps and/or assembly sequences.

It is understood that a publication of this type will be binding only if, and to the extent that, both contracting parties have agreed upon it.

This document excludes matters of purely commercial interest, except those inextricably bound up with the conduct of installation.

The tolerances in this document have been established upon best practices and experience, although it is recognized that other standards specify different tolerances.

Wherever this document specifies that documents, drawings or information is supplied by a manufacturer (or by manufacturers), each individual manufacturer will furnish the appropriate information for their own supply only.

### 2 Normative references

There are no normative references in this document.

### 3 Terms and definitions

No terms and definitions are listed in this document.

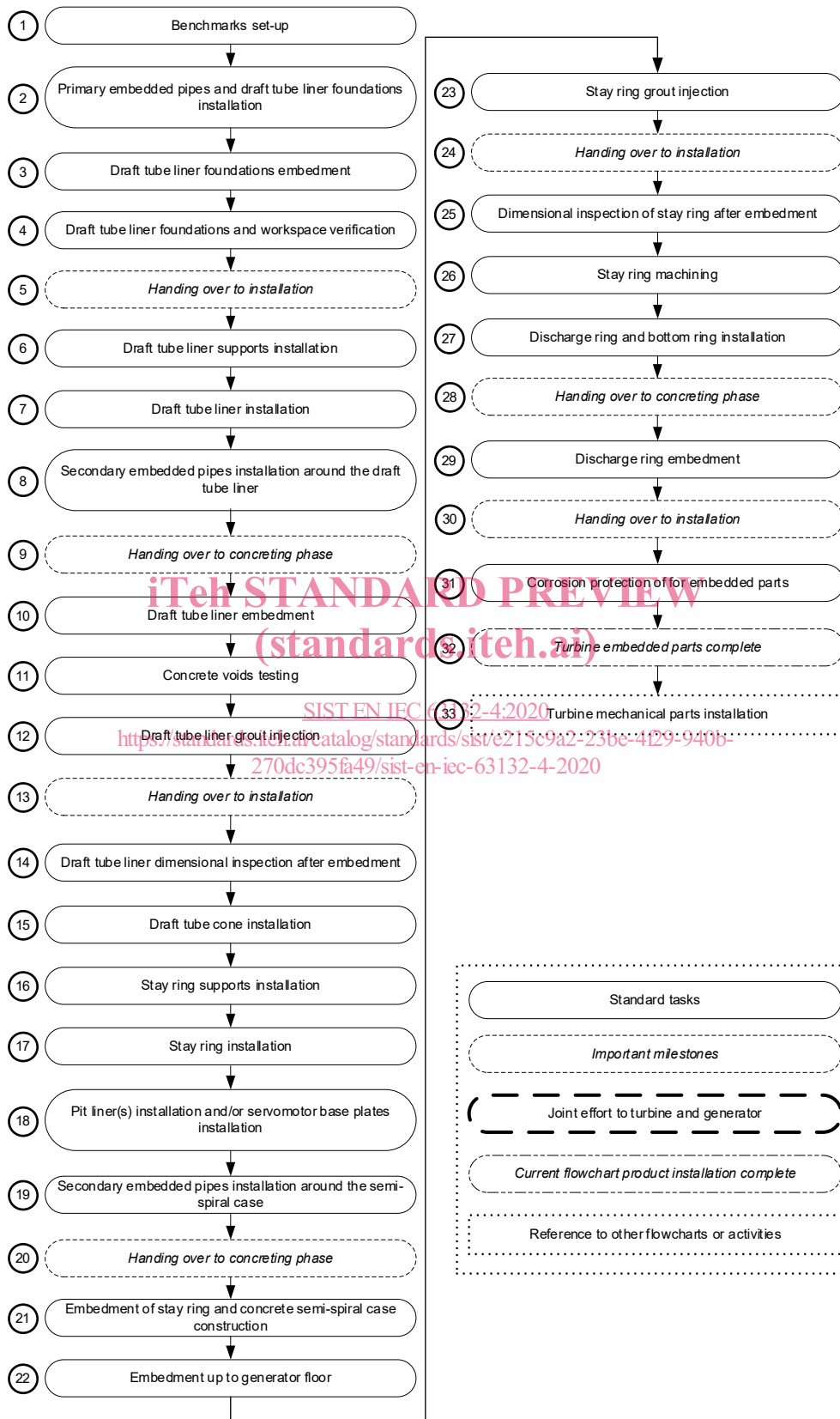
ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

### 4 Installation flowchart

#### 4.1 Turbine embedded parts

Figure 1 shows a generic installation flowchart for vertical Kaplan or propeller turbine embedded parts.



**Figure 1 – Generic installation flowchart – Vertical Kaplan or propeller turbine embedded parts**

## 4.2 Turbine mechanical parts

Figure 2 shows a generic installation flowchart for vertical Kaplan or propeller turbine mechanical parts.

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