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Installation of post-tensioning kits for prestressing of structures - Part 1: Competence of personnel



## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

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Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 26.10.2022.	Date of Availability of the European standard is 26.10.2022.
Standard on kättesaadav Eesti Standardimis-ja Akrediteerimiskeskusest.	The standard is available from the Estonian Centre for Standardisation and Accreditation.

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ICS 03.100.30, 91.080.40

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ICS 03.100.30; 91.080.40

English Version

## Installation of post-tensioning kits for prestressing of structures - Part 1: Competence of personnel

Mise en oeuvre de kits de post-tension pour la précontrainte des structures - Partie 1 : Compétences du personnel

Ausführung von Arbeiten von Spannverfahren mit nachträglichem Verbund in Tragwerken - Teil 1: Personalkompetenz

This European Standard was approved by CEN on 19 September 2022.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

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EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

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## European foreword

This document (EN 17678-1:2022) has been prepared by Technical Committee CEN/TC 104 “Concrete and related products”, the secretariat of which is held by SN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by April 2023, and conflicting national standards shall be withdrawn at the latest by April 2023.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

Any feedback and questions on this document should be directed to the users’ national standards body. A complete listing of these bodies can be found on the CEN website.

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## Introduction

The market for the post-tensioning (PT) kits exists worldwide but the first area of concern is Europe.

The main motivating factor for creating this document on competence of personnel is:

- safety and quality considerations during the installation of the PT kits;
- safeguarding the integrity of structures during their service life;
- facilitating free movement of PT personnel, both between PT specialist companies and member states.

The requirements for the competence and assessment of prestressing personnel are based on the experience of CWA 14646:2003 [2].

The CWA was initiated by the PT providers and the CEN workshop represented all groups of stakeholders related to the installation of PT kits.

As CWA 14646 has expired and to fill this gap, an initiative by the same group of stakeholders was taken to replace and update the provisions on competence in CWA 14646 with this document.

This document supplements the general requirements of personnel given in EN 13670.

Part 1 of this document deals with the minimum competence personnel working with PT installations shall possess, and with the tasks the personnel is qualified to undertake.

Part 2 of this document gives the framework for how to assess the competence of PT personnel and issue certificates to candidates fulfilling the requirements.

Additional requirements and requirements beyond the minimum formulated in this document may be specified in a project specification or in a national annex to this document.

## 1 Scope

This document specifies the minimum training and registration requirements for post-tensioning personnel involved in the installation of PT kits. These PT kits are typically used in concrete structures using bonded or unbonded tendons in accordance with the relevant execution specifications, product standard and / or appropriate technical assessment.

This document specifies the tasks that the various categories of PT personnel can undertake.

For the purposes of this document, PT personnel means: PT Manager, PT Supervisors, PT Operatives and PT Trainees who are directly employed or indirectly employed on a sub-contract basis.

This document does not cover general safety and health aspects.

This document does not cover contractual issues.

prEN 17678-2:2022 deals with the assessment of competence.

## 2 Normative references

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.

EN 445, *Grout for prestressing tendons – Test methods*

EN 446, *Grout for prestressing tendons – Grouting procedures*

EN 447, *Grout for prestressing tendons - Basic requirements*

EN 1992-1-1, *Eurocode 2: Design of concrete structures - Part 1-1: General rules and rules for buildings*

EN 13670, *Execution of concrete structures*

## 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

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

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

### 3.1

#### **client**

body for which the PT installation works are being carried out

### 3.2

#### **ETA**

European Technical Assessment (ETA) for a construction product, a favourable technical assessment of its fitness for the intended use, based on the contribution made by this product to the fulfilment of the seven Essential Requirements, as stated in the Construction Products Regulation (CPR) for the construction works in which the product is installed

Note 1 to entry: ETAs are issued by approved Technical Approval bodies under the guidance of “European Organisation for Technical Assessment (EOTA)”.