



SLOVENSKI STANDARD
oSIST prEN 18007-2:2023
01-november-2023

Elektromagnetno utripno varjenje - 2. del: Načrtovanje zvarnih spojev

Electromagnetic pulse welding - Part 2: Design of welded joints

Schweißen und verwandte Verfahren - Elektromagnetisches Pulsschweißen - Teil 2:
Ausführung der Schweißverbindungen

Soudage par impulsion électromagnétique - Partie 2 : Conception des assemblages soudés

Ta slovenski standard je istoveten z: prEN 18007-2

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ICS:		
25.160.10	Varilni postopki in varjenje	Welding processes
25.160.40	Varjeni spoji in vari	Welded joints and welds

oSIST prEN 18007-2:2023

en,fr,de

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

DRAFT
prEN 18007-2

August 2023

ICS 25.160.10

English Version

Welding and allied processes - Electromagnetic pulse welding - Part 2: Design of welded joints

Schweißen und verwandte Verfahren -
Elektromagnetisches Pulsschweißen - Teil 2:
Ausführung der Schweißverbindungen

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 121.

If this draft becomes a European Standard, 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.

This draft European Standard was established by CEN in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

Warning : This document is not a European Standard. It is distributed for review and comments. It is subject to change without notice and shall not be referred to as a European Standard.



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

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

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European foreword

This document (prEN 18007-2:2023) has been prepared by Technical Committee CEN/TC 121 “Welding and allied processes”, the secretariat of which is held by DIN.

This document is currently submitted to the CEN Enquiry.

The EN 18007 series of standards consists of the following parts:

- *Part 1: Welding knowledge, terminology and vocabulary,*
- *Part 2: Design of welded joints,*
- *Part 3: Qualification of welding operators and weld setters,*
- *Part 4: Specification and qualification of welding procedures,*
- *Part 5: Quality and inspection requirements.*

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prEN 18007-2:2023 (E)**Introduction**

Electromagnetic pulse welding is an innovative solid-state welding technology that belongs to the group of pressure welding processes and is based on the use of electromagnetic forces to deform, accelerate and weld workpieces. No external heat source is used, the connection is only created by a high-velocity impact.

The increasing use of the electromagnetic pulse welding process has created the need for a standard, to ensure that the welding operations are carried out in the most effective manner and that appropriate controls are performed on all aspects of the implementation.

To be effective, welded products need to be free from problems in production and in service. To achieve this goal, it is necessary to provide controls from the design phase through material selection, choice of parameters, the fabrication itself, and inspection. For example, poor design can create serious and costly difficulties in the workshop or in service. Incorrect process parameters and/or material selection can result in welding defects. Welding procedures need to be correctly formulated and approved to avoid weld discontinuities. To ensure the manufacture of a quality product, management needs to understand the causes of potential problems and implement appropriate inspection procedures and subsequent quality measures. Supervision should be implemented to ensure that the specified quality is achieved.

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