

**Keevitamine. Terasest
keevitusõmbluse põhilised detailid .
Osa 1: Kõrgrõhu komponendid**

Welding - Basic weld joint details in steel - Part 1:
Pressurized components

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 1708-1:1999 sisaldab Euroopa standardi EN 1708-1:1999 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 23.11.1999 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 1708-1:1999 consists of the English text of the European standard EN 1708-1:1999.</p> <p>This document is endorsed on 23.11.1999 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p>Käsitlusala: The purpose of this standard is to exemplify commonly accepted welded connections in pressure systems.</p>	<p>Scope: The purpose of this standard is to exemplify commonly accepted welded connections in pressure systems.</p>
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ICS 25.160.40

Võtmesõnad: pressure systems, pressurized components, steels, welded joints, welding, welding processes

ICS 25.160.40

English version

Welding

Basic welded joint details in steel

Part 1: Pressurized components

Soudage – Descriptif de base des assemblages soudés en acier – Partie 1: Composants soumis à la pression

Schweißen – Verbindungselemente beim Schweißen von Stahl – Teil 1: Druckbeanspruchte Bauteile

This European Standard was approved by CEN on 1998-10-30.

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 Central Secretariat or to any CEN member.

The European Standards exist 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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

CEN

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

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Contents

	Page
Foreword	2
1 Scope	3
2 Normative References	3
3 Requirements	3
3.1 Selection of detail	3
3.2 Joint preparation (geometry and size)	3
3.3 Presentation	4
3.4 Removal of internal sharp edges in branch bores	4
3.5 Preparation of holes in shell for set-in and set-through branches	4
3.6 Welds for smooth transition	5
3.7 Oblique and tangential branches	5
Annex ZA (informative) Clauses of this European Standard addressing essential requirements or other provisions of EU Directives	71
Tables	
Table 1 Butt joints in plates of different thickness	6
Table 2 Branches without compensation rings	8
Table 3 Branches with compensation rings	20
Table 4 Sockets and couplings	22
Table 5 Flanges	23
Table 6 Jacketed vessels	28
Table 7 Tube to tube plate connection	41
Table 8 Flate end or tube plate to shell connections	46
Table 9 Internal diaphragms and separators	51
Table 10 Supports and non-pressure parts	53
Table 11 Special shell to heat end connections	61
Table 12 Weld ring seal	62
Table 13 Pipe details	64

Foreword

This European Standard has been prepared by Technical Committee CEN/TC 121 "Welding", the secretariat of which is held by DS.

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 September 1999, and conflicting national standards shall be withdrawn at the latest by September 1999.

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this standard.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

This European Standard is composed of the two following parts:

- Part 1: Pressurized components;
- Part 2: Non internal pressurized components.

1 Scope

The purpose of this standard is to exemplify commonly accepted welded connections in pressure systems. It does not promote the standardization of connections that may be regarded as mandatory or restrict development in any way. Stress analysis rules are to be considered if necessary.

This standard contains examples of connections welded by:

- Metal-arc welding with covered electrode (111);
- Submerged arc welding with wire electrode (121);
- Metal-arc inert gas welding; MIG-welding (131);
- Metal-arc active gas welding; MAG-welding (135);
- Flux-cored wire metal-arc welding with active gas shield (136);
- Flux-cored wire metal-arc welding with inert gas shield (137);
- Tungsten inert gas arc welding; TIG-welding (141);

processes (process numbers according to EN 24063) in steel pressure systems. Other processes by agreement.

The estimation of the suitability of welded connections for special service conditions, for example corrosion, creep, low temperature and fatigue are not specially considered.

2 Normative References

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revision of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

EN 24063

Welding, brazing, soldering and braze welding of metals – Nomenclature of processes and reference numbers for symbolic representation on drawings (ISO 4063 : 1990)

EN 25817

Arc-welded joints in steels – Guidance on quality levels for imperfections (ISO 5817 : 1992)

EN 29692

Metal-arc welding with covered electrode, gas shielded metal-arc welding and gas welding – Suggested joint preparations for steel (ISO 9692 : 1992)

EN ISO 9692-2

Welding and allied processes – Joint preparation – Part 2: Submerged arc welding of steel (ISO 9692-2 : 1998)

3 Requirements

3.1 Selection of detail

Connections are not considered to be equally suitable for all service conditions, nor is the order in which they are shown indicative of their relative characteristics. In selecting the appropriate detail to use from the several alternatives shown for each type of connection, consideration shall be given to existing fabrication and service conditions that pertain.

3.2 Joint preparation (geometry and size)

3.2.1 General

The limitations quoted in weld profiles and sizes are based on commonly accepted practice, but they may be subjected to modifications if required by special welding techniques or design conditions, which should be included in the design documents and in the welding procedure specifications (WPS).

3.2.2 Joint preparation geometry

Examples of recommended joint preparation geometry (e.g. bevel angles, root radius, presents of backing strips, root faces) are referred to EN 29692 when applicable and to EN ISO 9692-2 relative to submerged arc welding process. Missing dimensions of preparations are in accordance with EN 29692.