



CEN/PE/AN N 338

Pressure Equipment Advisory Nucleus

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- For information
- To be discussed during the next meeting
- For decision at the next meeting
- Following the last meeting

PED and SPVD Standard
How to draft and correct “Welding/Brazing clauses”



PED and SPVD Standard
Drafting rules for “Welding/Brazing clauses”
as of 2020-01-28

This document intends to explain the new system of rules to draft “welding/Brazing clauses” in harmonized standards under the Pressure Equipment Directive (PED) and Simple Pressure Equipment Directive (SPVD).

This new system of rules solves a compatibility issue between the CEN rules and the EC requirements for PED/SPVD related standards. It results from an agreement between the European Commission Desk Officer in charge of PED/SPVD, the PED/SPVD HAS Consultants and the CCMC Mobility Team. It has been approved at the Pressure Equipment Advisory Nucleus meeting held on 2020-01-28.

This document provides guidelines for both CEN Technical committees and CCMC editors on how to draft/correct a “welding/brazing clause” in PED/SPVD related standards.

1) Definition of “Welding/Brazing clauses” in PED/SPVD Standard

Many Technical Committees (CEN/TC 54, CEN/TC 69, CEN/TC 70, CEN/TC 132, CEN/TC 268, CEN/TC 269, CEN/TC 286, CEN/TC 326, etc...), when drafting PED/SPVD standards, often include one or several clauses related to:

- Welding general procedures,
- Welding personnel qualification,
- Brazing personnel qualification,
- Brazing procedure qualification,
- Non-destructive testing personnel qualification

In the rest of this document, the above are referred to inclusively as “welding clauses”

When drafting these clauses, the Technical Committee decides generally to claim presumption of conformity with the following Essential Safety Requirement (ESR):

- 3.1.2 (equipment of categories II, III and IV only) of the Pressure Equipment Directive
- 3.1.3 of the Pressure Equipment Directive
- 3.2 of the Simple Pressure Vessel Directive

This has been a very common practice for several years.

2) Description of the CEN Internal Regulation and EC rules compatibility issue

- **The EC rules for PED related standards requires that “welding clauses” specify that the examiner/examining bodies shall be a competent third party organisation (for SPVD a notified body)**

For instance, very often the HAS Consultant asks the Technical Committee to reformulate the clause in these terms:

“For the pressure vessels in the categories II, III and IV, the examiner / examining body shall be a competent third party organisation (...)”

- **The neutrality principle described in the CEN Internal Regulation 3, clause 33.1, forbids to do so:**

“All documents containing requirements for products, processes, services, persons, systems and bodies shall be written in accordance with the “neutrality principle”, such that conformity can be assessed by a manufacturer or supplier (first party), a user or purchaser (second party), or an independent body (third party).”

3) Consequential impact of the above compatibility issue



Considering both sets of rules cannot be respected at the same time, the technical Committees have two options

- following the HAS Consultant advice which means the CEN rules will not be respected and CCMC will block the publication.
- following the CEN rules which means the standard will not respect the EC rule. The HAS consultant will issue a non-compliant assessment and the standard will not be cited in the OJEU.

Neither of these options is satisfactory for any of the parties. The work-around described in the next sections of this document was therefore agreed on.

4) The new rules agreed on by all parties

Principle: When drafting a “welding clause” in a PED/SPVD related standard, the Technical Committee shall:

- Limit the “welding clause” to a statement laying down that the procedure or the qualification shall be “in accordance with” one or multiple specific normative references. All parties have agreed on a restrictive list of normative references which are listed under point (5).
- By the above, the type of examiner/examining body (competent third party organization, etc) shall NOT be specified in the “welding clause”.
- NOT refer to the "welding clause" in the Annex ZA.
Exception: This new CEN system is not applicable when the normative reference used in “Welding clauses” is either EN ISO 9606-1:2017 or EN 13445-4:202#. EN standards referencing those normative references shall be allowed to list the relevant standard clauses in their Annex ZA claiming compliance with the PED ESR 3.1.2, par 3,4,5 / SPVD ESR 3.2

Example 1:

“Clauses 14.5.3: The welding personnel shall be qualified in accordance with EN ISO 14732:2013”

This clause does not appear in the Annex ZA.

EN ISO 14732 (about welding operators qualification) is part of the agreed set of normative references.

Example 2:

“Clauses 9.1.2: The qualification of welders shall be approved in accordance with EN ISO 9606-2 for the intended processes, material groups and range of sizes”

This clause does not appear in the Annex ZA.

EN ISO 9606-2 is part of the agreed set of normative references.

5) Agreed set of normative references to be used inside the “welding clauses”

Under the New System of Rules, “Welding Clauses” may include one or several of the following normative references:

- EN 13134
- EN ISO 9606-2 to 5
- EN ISO 9712
- EN ISO 15614 series – 1 to 8 (except 3) and -11
- EN ISO 15614-1 including Amd 1



- EN ISO 15613
- EN ISO 14732
- EN ISO 15611
- EN ISO 15612

Technical bodies wishing to reference any other 'welding' standard are invited to contact the CCMC Mobility team.

6) Rationales for not including "welding clauses" Annex ZA

In order to ensure presumption of conformity, the standards used as normative reference in "Welding Clauses" shall include in their own content a correct Annex ZA and be cited in the OJEU ("cascading effect"). At the time this document is being drafted (June 2020), this is not the case for all the agreed normative references listed under point (5). In consequence, a "welding clause" referencing them currently cannot be assumed to give presumption of conformity and therefore cannot be listed in an Annex ZA.

During the first half of 2020, CCMC invited the Technical Committees in charge of the agreed list of normative reference to revise those standards accordingly. The Technical Committees have positively responded and started the work to

- (1) equip each of the normative references with an appropriate Annex ZA (see (7) of this document)
- (2 - if needed) revise the content to meet the EC requirements to be candidate for citation (feedback was through indicative HAS assessments).

This process is expected to take minimum three years. Once completed, including "welding clauses" in Annex ZA of PED/SPVD related standard will be authorized.

7) Template for the Annex ZA of the normative references used in the "welding clauses"

The Annex ZA of the standards listed under point 5) shall be drafted or corrected following a specific model:

Case 1 – Compliance claimed with PED ESR 3.1.2:

Table ZA.1 — Correspondence between this European Standard and Annex I of the Directive 2014/68/EU (PED)

Essential Requirements of the Directive 2014/68/EU	Clauses/sub-clauses of this EN	Remarks/Notes
3.1.2 , paragraphs 3, 4 and 5	<i>Only clause providing compliance with the PED Essential Requirement 3.1.2 , paragraphs 3, 4 and 5</i>	Permanent joining. For pressure resistant components of pressure equipment in the categories II, III and IV the examiner/examining body is a competent third party.

Case 2 – Compliance claimed with PED ESR 3.1.3:

Table ZA.1 — Correspondence between this European Standard and Annex I of the Directive 2014/68/EU



(PED)

Essential Requirements of the Directive 2014/68/EU	Clauses/sub-clauses of this EN	Remarks/Notes
3.1.3	<i>Only clause providing compliance with the PED Essential Requirement 3.1.3</i>	Non -destructive testing of permanent joints. For pressure equipment in the categories III and IV the certification body is a recognised third party organisation.

Case 3 – Compliance claimed with SPVD ESR 3.2:

Table ZA.1 — Correspondence between this European Standard and Annex I of the Directive 2014/29/EU (SPVD)

Essential Requirements of the Directive 2014/29/EU	Clauses/sub-clauses of this EN	Remarks/Notes
3.2, paragraph 2	<i>Only clause providing compliance with the SPVD Essential Requirement 3.2 paragraph 2</i>	Welds on pressurised parts. The examiner/examining body is a notified body.

8) Checklist for the Technical Committees and CCMC Editors

For the Technical Committees when drafting a “welding clause” in a PED/SPVD related standard:

- Follow the guidelines listed in this document when drafting the clause
- When using a normative reference, only use the normative reference listed in 5)
- Check that you do not include the clause in the Annex ZA

For the CCMC editors when assessing a “welding clause” in a PED/SPVD related standard:

- Check that the clause does not refer to an examiner/examining body (IR 3, 33.1)
- Check that the clause only uses normative references listed in 5)
- Check that the clause is not included in the Annex ZA
Exception: please see point (4)

9) Temporal application of the new system of rules

The system of rules described in this document:

- **applies** to all draft harmonized standards related to under PED and SPVD, which are presently under preparation
- **does not apply** to standards which have reached the Formal Vote stage on 2020-05-01.
- **does not apply** to the 2020 edition of the compilation of the EN 13445 serie "Unfired pressure vessels"

Once the agreed set of normative reference will have been revised and all cited in the OJEU as described in point (6), an updated version of this document will be circulated.