

## **CE marking of attached steel components on storage tanks**

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# Design standard for Storage Tanks

## Design standards - Typical

- EN 14015 - (Eurocodes)
- API 650
- Other
  
- **Tank structures shall NOT be CE-marked**
- Attachments are not clearly addressed in tank standards



# CE marking of attached steel components ?

- When to CE - mark or not to CE – mark, that is the question !
- A frequently asked question !

# What is CE marking

Conformity assessment

- **According to directive or regulation**
- **Remove barriers to trade !**
- **Fulfill safety requirements**



# CE-marking

European Directives or Regulations

- **Construction Product Regulation – CPR**

**Components and prefabricated  
Structures**

**Not permanently joined to soil foundation as a building structure - Stationary**

- Equipment and protective systems intended for use in potentially explosive atmospheres – ATEX
- Pressure Equipment Directive – PED
- Machinery Directive – EC Machinery
- Electromagnetic Compatibility Equipment – EMC



# Products to comply with Construction Products Regulations (CPR)

Structural Construction Products covered by EN 1090 under CPR 305/2011 are:

Structural construction products intended being incorporated permanent in building structures or civil engineering works

and

The product has a structural function in relation to the construction - main structure

and -

# Products to comply with Construction Products Regulations (CPR)

And:

The product is NOT covered by another dedicated European product specification

Such as :

a harmonised EN standard or

an ETAG ( European technical Assessment Guideline) or

an ETA (European Technical assessment )

# Construction Product Regulation

Harmonized standard

E.g.:

- EN 1090-series – steel/aluminium structures
- EN 12951 – Ladders (roof ladders)
- [List of harmonised standards to CPR - http://ec.europa.eu/growth/single-market/european-standards/harmonised-standards/construction-products/](http://ec.europa.eu/growth/single-market/european-standards/harmonised-standards/construction-products/)

European Technical Assessment - ETAG

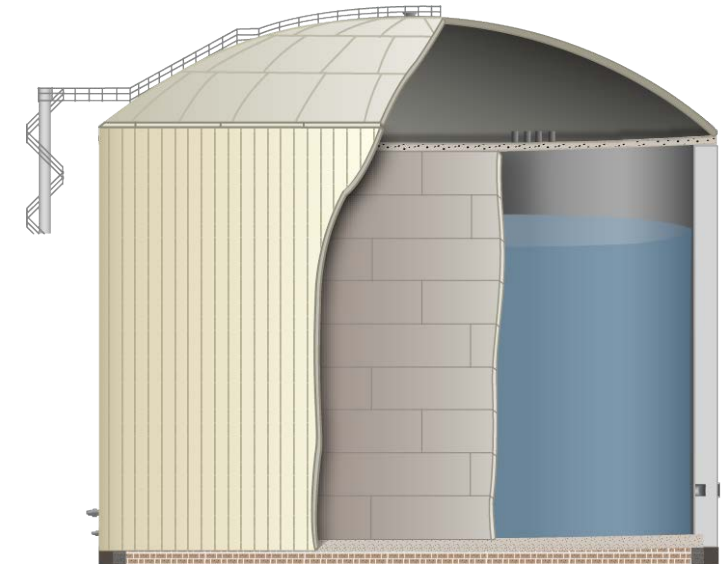
- Independent ETA in each member state – novell products



# CE marking of attached steel components on storage tanks

Typical attached steel components

- **Stairs**
- **Balustrades**
- **Galleries**
- **Platforms**
- **Roof ( No CE marking )**
- **Pipe Brackets**
- **Etc. and combinations**



# Example of DoC

- EN 1090-1
- Proposed format

<p style="text-align: center;"><b>CE</b> 01234</p>	<p><i>CE conformity marking, consisting of the "CE"-symbol given in Directive 93/68/EEC.</i></p> <p><i>Identification number of the notified body</i></p>
<p style="text-align: center;">Any Co Ltd, PO Box 21, B-1050</p> <p style="text-align: center;"><b>11</b></p> <p style="text-align: center;">01234-CPD-00234</p>	<p><i>Name or identifying mark and registered address of the producer</i></p> <p><i>Last two digits of the year in which the marking was affixed</i></p>
<p style="text-align: center;"><b>EN 1090-1:2009+A1:2011</b></p> <p>Roof trusses in steel, to be used in the new library in Berlin - M.201</p> <p>Tolerances on geometrical data: EN 1090-2.</p> <p>Weldability: S235J0 according to EN 10025-2.</p> <p>Fracture toughness: 27 Joule at 0°C.</p> <p>Reaction to fire: Material classified: Class A1.</p> <p>Release of cadmium: NPD.</p> <p>Emission of radioactivity: NPD.</p> <p>Durability: Surface preparation according EN 1090-2, Preparation grade P3. Surface painted according to EN ISO 12944, see component specification for details.</p> <p>Structural characteristics:  <u>Load bearing capacity:</u> Design according to EN 1993-1, see accompanying design brief and design calculations. NPDs for Germany apply. Reference: DC 102/3.  <u>EN Deformation at serviceability limit state:</u> NPD          Fatigue strength: NPD.  <u>Resistance to fire:</u> Calculated value: R 30, see DC 102/3.  <u>Manufacturing:</u> According to component specification C8—0018/2006, and EN 1090-2, EXC3.</p>	<p><i>Certificate number</i></p> <hr/> <p><i>No. of European standard</i></p> <p><i>Description of product and information on regulated characteristics</i></p>

Figure ZA.3 – Example CE marking information by strength values of the component

# EN 1090-series

- Comply with EN 1090-1

CEN/TR 17052:2017 – Interpretation report  
What is included – what is not included



# Example

## Common' fences and railings (balustrades) and staircases

- Elements having only the function of preventing a person from falling **are not structural products**
- For this reason, such elements **cannot be CE marked** on the **basis of standard EN 1090-1**.
- Elements having a role in supporting the structure of the construction work or parts of it **are** covered by EN 1090-1 and must be placed on the market with a DoP and the CE marking.

# Applicable for CE-marking

According to EN 1090

**Recalling accessories for storage tanks:**

- **Stairs – Yes, if a construction in it self. NO, if structurally integrated in tank**
- **Balustrades – NO, unless the balustrades have a structural function**
- **Galleries – Yes, if a construction in it self. NO, if structurally integrated in tank**
- **Platforms – Yes, if a construction in it self. NO, if structurally integrated in tank**
- **Roof – NO, but can be manufactured according to EN 1090-2 (covered by tank design standard)**
- **Pipe Brackets – Grey zone**

# Products to comply with CPR

Only products covered by CPR

- Products may have to be manufactured according to specified execution standards, e.g. EN 1090-series

**BUT**

- Only products covered by CPR must be CE-marked and Declaration of Performance (DOP)

# Questions



Further information at [forcetechnology.com](http://forcetechnology.com)

