

## AD 389

# Acceptable design codes for CE Marking of fabricated steelwork

**CE Marking** for all construction products (e.g steel sections, bolts etc), covered by a harmonised European standard (see definition below) or conforming to a European Technical Assessment (see definition below) became mandatory on 1 July 2013. For fabricated structural steelwork, CE Marking became mandatory on 1 July 2014.

The Advisory Desk has frequently been asked whether the **Eurocodes** are the only acceptable Standards for the design of structural components for which CE marking of the fabricated product is sought.

The harmonised standard covering **fabricated** structural steelwork is BS EN 1090-1 .

The purpose of this AD note is to clarify the guidance given in Annex A of BS EN 1090-1 for which, in certain situations, acceptance in the use of Standards, other than Eurocodes, are permitted in the design brief.

Annex A of BS EN 1090-1 gives guidelines for the preparation of the component specification, an important document for the manufacture of the fabricated structural component, and where appropriate, provides clarity on the structural design process as defined in the design brief and in the declaration of the component structural characteristics.

Two principle approaches described are:

1. Manufacturer provided Component Specification (MPCS)
2. Purchaser provided Component Specification (PPCS)

For the approach where the manufacturer provides the Component Specification, attention is drawn to **Method 3b Option 2** in Table A.1. This method allows for the use of the purchaser's

design brief or the manufacturer's design brief to meet the client's order. If the client specifies that a Standard other than a Eurocode is to be used, the structural **design** and the basis for the declaration of the structural characteristics for inclusion in the CE marking label, can be determined using that stated Standard. Hence in this method, standards such as British Standards (BS 5950-1:2000) or American Standards etc, are acceptable.

For the approach where the purchaser provides the Component Specification, attention is drawn to clause A.2 and in particular Note 1 (**Method 3a** in Table A.1). In this approach it is presupposed that structural design has been performed by the purchaser, and that the structural design is carried out according to the provisions in the country where the component is to be used. Hence in this case standards such as British Standards (BS 5950-1:2000) or American Standards etc, will also be acceptable.

For completeness of this advisory note, the guidance given in Annex A presents other methods for the content of the declaration of conformity, these being:

#### Method 1 using MPCs Option 1

The manufacturer produces the component specification but only declares the geometry and the material properties of the component (no structural design data is used or provided). The manufacturer therefore provides no warranty with respect to structural design.

#### Method 2 using MPCs Option 2

The manufacturer produces the component specification based on

his own structural design calculations using the appropriate Eurocodes. These characteristics are given in the **Declaration of Performance** (DoP). The manufacturer includes a warranty with respect to the structural design that he has undertaken.

#### Notes

A full list of harmonised standards can be found on the EU's Nando website – [www.ec.europa.eu](http://www.ec.europa.eu) .

A full list of ETA's can be found on the EOTA website [www.eota.be](http://www.eota.be) .

#### Definitions

- 1 A **harmonised European Standard** (hEN) is one which has been adopted by one of the European standardisation bodies and contains an Annex ZA requiring a Declaration of Performance (DoP) and provision of the CE marking information for the product supplied.
- 2 A manufacturer can obtain CE Marking on a voluntary basis via a **European Technical Assessment** (ETA) when a new or innovative product is not covered by a harmonised European Standard (hEN).

- 1 BS EN 1090-1:2009+A1:2011 Execution of steel structures and aluminium structures: Part 1: Requirements for conformity assessment for structural components (an updated version of this standard is proposed to be published in 2015)

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