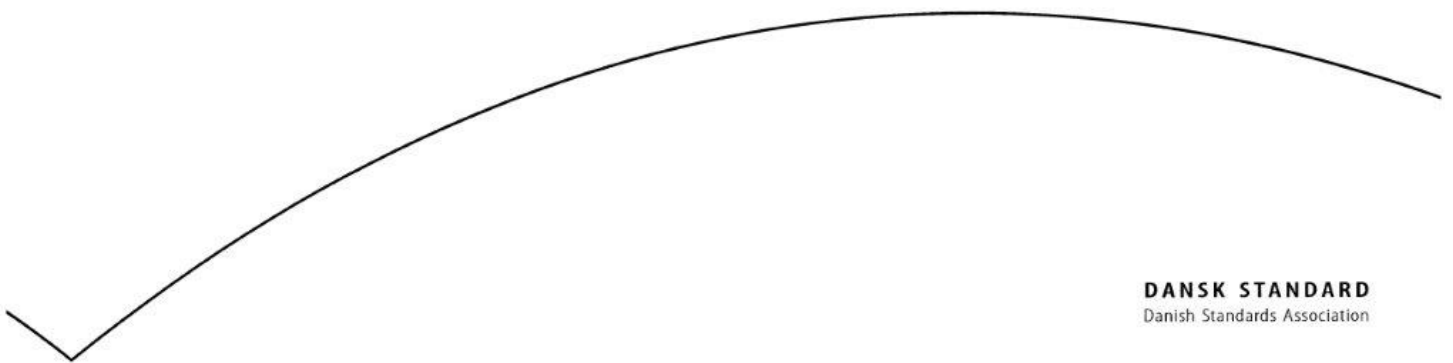


2017-05-02

Eurocode 3: Stålkonstruktioner – Del 1-6: Skalkonstruktioners styrke og stabilitet

Eurocode 3 – Design of steel structures –
Part 1-6: Strength and Stability of Shell Structures



DANSK STANDARD
Danish Standards Association

Göteborg Plads 1
DK-2150 Nordhavn
Tel: +45 39 96 61 01
Fax: +45 39 96 61 02
dansk.standard@ds.dk
www.ds.dk

This is a preview of "DS/EN 1993-1-6:2007/...". Click here to purchase the full version from the ANSI store.

DS-projekt: MS09117

ICS: 91.010.30; 91.070.30; 91.080.10; 91.080.13

Første del af denne publikations betegnelse er:

DS/EN, hvilket betyder, at det er en europæisk standard, der har status som dansk standard.

Denne publikations overensstemmelse er:

IDT med: EN 1993-1-6:2007/A1:2017.

DS-publikationen er på engelsk.

DS-publikationstyper

Dansk Standard udgiver forskellige publikationstyper.

Typen på denne publikation fremgår af forsiden.

Der kan være tale om:

Dansk standard

- standard, der er udarbejdet på nationalt niveau, eller som er baseret på et andet lands nationale standard, eller
- standard, der er udarbejdet på internationalt og/eller europæisk niveau, og som har fået status som dansk standard

DS-information

- publikation, der er udarbejdet på nationalt niveau, og som ikke har opnået status som standard, eller
- publikation, der er udarbejdet på internationalt og/eller europæisk niveau, og som ikke har fået status som standard, fx en teknisk rapport, eller
- europæisk præstandard

DS-håndbog

- samling af standarder, eventuelt suppleret med informativt materiale

DS-hæfte

- publikation med informativt materiale

Til disse publikationstyper kan endvidere udgives

- tillæg og rettelsesblade

DS-publikationsform

Publikationstyperne udgives i forskellig form som henholdsvis

- fuldtekstpublikation (publikationen er trykt i sin helhed)
- godkendelsesblad (publikationen leveres i kopi med et trykt DS-omslag)
- elektronisk (publikationen leveres på et elektronisk medie)

DS-betegnelse

Alle DS-publikationers betegnelse begynder med DS efterfulgt af et eller flere præfikser og et nr., fx **DS 383**, **DS/EN 5414** osv. Hvis der efter nr. er angivet et **A** eller **Cor**, betyder det, enten at det er et **tillæg** eller et **rettelsesblad** til hovedstandard, eller at det er indført i hovedstandard.

DS-betegnelse angives på forsiden.

Overensstemmelse med anden publikation:

Overensstemmelse kan enten være IDT, EQV, NEQ eller MOD

- **IDT:** Når publikationen er identisk med en given publikation.
- **EQV:** Når publikationen teknisk er i overensstemmelse med en given publikation, men præsentationen er ændret.
- **NEQ:** Når publikationen teknisk eller præsentationsmæssigt ikke er i overensstemmelse med en given standard, men udarbejdet på baggrund af denne.
- **MOD:** Når publikationen er modificeret i forhold til en given publikation.

This is a preview of "DS/EN 1993-1-6:2007/...". [Click here to purchase the full version from the ANSI store.](#)

EUROPÄISCHE NORM

April 2017

ICS 91.010.30; 91.080.13

English Version

Eurocode 3 - Design of steel structures - Part 1-6: Strength and Stability of Shell Structures

Eurocode 3 - Calcul des structures en acier - Partie 1-6 :
Résistance et stabilité des structures en coque

Eurocode 3 - Bemessung und Konstruktion von
Stahlbauten - Teil 1-6: Festigkeit und Stabilität von
Schalen

This amendment A1 modifies the European Standard EN 1993-1-6:2007; it was approved by CEN on 17 January 2017.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for inclusion of this amendment into the relevant national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This amendment exists 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.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents	Page
European foreword.....	4
1 Modifications to the Foreword.....	5
2 Modification throughout the whole standard.....	5
3 Modification to 1.2, Normative references	5
4 Modifications to 1.3, Terms and definitions.....	5
5 Modifications to 1.4, Symbols	6
6 Modification to 2.2.5, Linear elastic bifurcation analysis (LBA).....	7
7 Modification to 2.2.6, Geometrically nonlinear elastic analysis (GNA).....	7
8 Modification to 2.2.7, Materially nonlinear analysis (MNA).....	7
9 Modification to 2.2.8, Geometrically and materially nonlinear analysis (GMNA).....	7
10 Modification to 2.2.9, Geometrically nonlinear elastic analysis with imperfections included (GNIA)	7
11 Modification to 2.2.10, Geometrically and materially nonlinear analysis with imperfections included (GMNIA).....	7
12 Modification to 3.3, Geometrical tolerances and geometrical imperfections	7
13 Modifications to 4.1.1, LS1: Plastic limit.....	7
14 Modification to 4.2.2.2, Primary stresses.....	8
15 Modification to 4.2.4, Design by global numerical analysis.....	8
16 Modification to 5.3, Types of analysis.....	8
17 Modification to Clause 6, Plastic limit state (LS1)	8
18 Modifications to 6.2.1, Design values of stresses.....	9
19 Modifications to 6.3, Design by global numerical MNA or GMNA analysis	9
20 Modification to 8.2, Special definitions and symbols.....	10
21 Modifications to 8.5.2, Design resistance (buckling strength)	10
22 Addition of a new Subclause 8.6, Design using reference resistances.....	11
23 Modifications to 8.6.2 (new subclause number: 8.7.2), Design value of resistance.....	13
24 Modifications to 8.7.2 (new subclause number: 8.8.2), Design value of resistance.....	14
25 Modification to Annex B (normative), Additional expressions for plastic collapse resistances.....	14
26 Modification to C.3.3, Cylinder, pinned: uniform internal pressure with axial loading.....	15
27 Modifications to D.1.2.2, Meridional buckling parameters	15
28 Modification to D.1.3.2, Circumferential buckling parameters.....	16
29 Modification to D.1.4.2, Shear buckling parameters	16
30 Modifications to D.1.5.2, Pressurised meridional buckling parameters	16

This is a preview of "DS/EN 1993-1-6:2007/...". [Click here to purchase the full version from the ANSI store.](#)

31	Modification to D.1.6, Combinations of meridional (axial) compression, circumferential (hoop) compression and shear.....	16
32	Modifications to D.4.2.2, Meridional compression.....	17
33	Addition of a new Annex E (normative), Expressions for reference resistance design.....	17

European foreword

This document (EN 1993-1-6:2007/A1:2017) has been prepared by Technical Committee CEN/TC 250 "Structural Eurocodes", the secretariat of which is held by BSI.

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 April 2018, and conflicting national standards shall be withdrawn at the latest by April 2018.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

This is a preview of "DS/EN 1993-1-6:2007/...". [Click here to purchase the full version from the ANSI store.](#)

1 Modifications to the Foreword

In the Foreword, in the section "National Annex for EN 1993-1-6", add the following entries into the list at the appropriate places:

"

– 6.2.1(6);

and

"

– 8.6.3(5);".

In the Foreword, in the section "National Annex for EN 1993-1-6", replace:

"

– 8.7.2 (7)

– 8.7.2 (16)

– 8.7.2 (18) (2 times)"

with:

"

– 8.8.2 (9)

– 8.8.2 (18)

– 8.8.2 (20) (2 times)".

2 Modification throughout the whole standard

Replace "r_R" with "R".

3 Modification to 1.2, Normative references

In the list of the parts of EN 1993, replace "Part 1.1 :." with "Part 1.1:2005:."

4 Modifications to 1.3, Terms and definitions

Replace the whole Entry 1.3.2.1 with:

"

1.3.2.1 plastic failure limit state (LS1)

ultimate limit state where the structure develops zones of yielding in a pattern such that its ability to resist increased loading is deemed to be exhausted".

Add a new Entry 1.3.5.3:

"

1.3.5.3 semi-membrane theory analysis

analysis that predicts the behaviour of an unsymmetrically loaded or supported thin-walled cylindrical shell structure by assuming that only membrane forces and circumferential bending moments satisfy equilibrium with the external loads";

and renumber accordingly the former Entry 1.3.5.3 (as 1.3.5.4) and the following definitions in 1.3.5.