

1. Record Nr.	UNISA996201566203316
Autore	Franssen Jean-Marc
Titolo	Fire design of steel structures : Eurocode 1 : actions on structures, part 1-2 : General actions - Actions on structures exposed to fire - Eurocode 3 : design of steel structures, part 1-2 : General rules - Structural fire design // Jean-Marc Franssen, Paulo Vila Real
Pubbl/distr/stampa	Berlin : , : ECCS : , : Ernst & Sohn, , 2010
ISBN	3-433-60159-3 3-433-60157-7 1-283-57772-0 9786613890177 1-62198-007-3 3-433-60160-7
Edizione	[First edition.]
Descrizione fisica	1 online resource (455 p.)
Collana	ECCS eurocode design manuals
Disciplina	693.82
Soggetti	Building, Fireproof - Standards Steel, Structural - Testing Steel, Structural - Standards Building, Iron and steel - Safety measures
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Title page; Table of Contents; 1 Introduction; 1.1. Relations between different Eurocodes; 1.2. Scope of EN 1993-1-2; 1.3. Layout of the book; 2. Mechanical Loading; 2.1. General; 2.1.1. General rule; 2.1.2. Simplification 1; 2.1.3. Simplification 2; 2.1.4. Simplification 3; 2.2. Examples; 2.3. Indirect actions; 3. Thermal Action; 3.1. General; 3.2. Nominal temperature-time curves; 3.3. Parametric temperature-time curves; 3.4. Zone models; 3.5. CFD models; 3.6. Localised fires; 3.7. External members; 4. Temperature in Steel Sections; 4.1. Introduction 4.2. The heat conduction equation and its boundary conditions 4.3. Advanced calculation model. Finite element solution of the heat conduction equation; 4.3.1. Temperature field using the finite element method; 4.4. Section factor; 4.5. Temperature of unprotected steelwork exposed to fire; 4.6. Temperature of protected steelwork exposed to

fire; 4.7. Internal steelwork in a void protected by heat screens; 4.8. External steelwork; 4.8.1. General principles; 4.8.2. Example; 4.9. View factors in the concave part of a steel profile; 4.10. Temperature in steel members subjected to localised fires
4.10.1. Unprotected steel members; 4.10.2. Protected steel members; 4.11. Temperature in stainless steel members; 4.11.1. Example; 5. Mechanical Analysis; 5.1. Basic principles; 5.2. Mechanical properties of carbon steel; 5.3. Classification of cross-sections; 5.4. Fire resistance of structural members; 5.4.1. General; 5.4.2. Tension members; 5.4.3. Compression members; 5.4.4. Shear resistance; 5.4.5. Laterally restrained beams; 5.4.5.1. Uniform temperature distribution; 5.4.5.2. Non-uniform temperature distribution; 5.4.5.3. Bending and shear; 5.4.6. Laterally unrestrained beams
5.4.6.1. The elastic critical moment for lateral-torsional buckling; 5.4.6.2. Resistance to lateral-torsional buckling; 5.4.7. Members with Class 1, 2 or 3 cross-sections, subjected to combined bending and axial compression; 5.4.8. Members with Class 4 cross-sections; 5.4.9. Some verifications of the fire resistance not covered by EN 1993-1-2; 5.4.9.1. Shear buckling resistance for web without intermediate stiffeners; 5.4.9.2. Cross section verification of a member subjected to combined bending and axial force (compression or tension); 5.4.9.2.1. Class 1 and 2 rectangular solid sections
5.4.9.2.2. Class 1 and 2 doubly symmetrical I- and H-sections; 5.4.9.3. Bending, shear and axial force; 5.5. Design in the temperature domain. Critical temperature; 5.6. Design of continuous beams; 5.6.1. General; 5.6.2. Continuous beams at room temperature; 5.6.3. Continuous beams under fire conditions; 5.7. Fire resistance of structural stainless steel members; 5.8. Design examples; 6. Advance Calculation Models; 6.1. General; 6.2. Thermal response model; 6.3. Mechanical response model; 7. Joints; 7.1. General; 7.2. Strength of bolts and welds at elevated temperature
7.3. Temperature of joints in fire

Sommario/riassunto

This book explains and illustrates the rules that are given in the Eurocode for designing steel structures subjected to fire. After the first introductory chapter, Chapter 2 explains how to calculate the mechanical actions (loads) in the fire situation based on the information given in EN 1990 and EN 1991. Chapter 3 presents the models to be used to represent the thermal action created by the fire. Chapter 4 describes the procedures to be used to calculate the temperature of the steelwork from the temperature of the compartment and Chapter 5 shows how the information given in EN 1993-1

2. Record Nr.	UNINA9910142801703321
Titolo	Asia-Pacific financial markets
Pubbl/distr/stampa	[Dordrecht], : Kluwer Academic Publishers [Dordrecht] : , : Springer
ISSN	1573-6946
Descrizione fisica	1 online resource
Soggetti	Finance - Asia Finance - Pacific Area Finances - Asie Finances - Pacifique, Region du Economic policy Finance Política econòmica Mercat financer periodicals. Periodicals. Periodiques. Revistes electròniques. Asia Economic policy Periodicals Pacific Area Economic policy Periodicals Asie Politique economique Periodiques Pacifique, Region du Politique economique Periodiques Asia Pacific Area Àsia oriental Japó
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Periodico
Note generali	Refereed/Peer-reviewed

