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elements/barettes; 2.2.2 Prefabricated driven piles; 2.2.2.1 Introduction; 2.2.2.2 Precast driven concrete piles; 2.2.2.3 Prefabricated driven steel and cast-iron piles; 2.2.2.4 Prefabricated driven timber piles; 2.2.3 Cast-in-place concrete piles; 2.2.3.1 Cast-in-place concrete piles with internal driving tube (Franki pile); 2.2.3.2 Cast-in-place top-driven piles (e.g. Simplex piles); 2.2.4 Screw piles (full displacement bored piles); 2.2.4.1 Introduction; 2.2.4.2 Atlas piles; 2.2.4.3 Fundex piles; 2.2.5 Grouted displacement piles 2.2.5.1 Pressure-grouted piles 2.2.5.2 Vibro-injection piles; 2.2.6 Micropiles; 2.2.7 Tubular grouted piles; 2.3 Foundation elements similar to piles; 3 Pile Foundation Design and Analysis Principles; 3.1 Pile Foundation Systems; 3.1.1 Single pile solutions; 3.1.2 Pile grillages; 3.1.3 Pile groups; 3.1.4 Piled raft foundations; 3.2 Geotechnical Investigations for Pile Foundations; 3.3 Classification of Soils for Pile Foundations; 3.4 Pile Systems for the Execution of Excavations and for Retaining Structures; 3.4.1 General; 3.4.2 Pile configurations 3.4.3 Pile systems and special execution requirements 3.4.4 Design; 3.4.5 Reinforcement; 3.4.6 Concrete; 3.4.7 Impermeability of bored pile walls; 3.5 Piles for the Stabilisation of Slopes; 3.6 Use of sacrificial Linings; 4 Actions and Effects; 4.1 Introduction; 4.2 Pile Foundation Loads Imposed by the Structure; 4.3 Installation Effects on Piles; 4.4 Negative Skin Friction; 4.4.1 Introduction; 4.4.2 Determination of the characteristic action from negative skin friction; 4.4.3 Determination of the design values of actions or effects and method of verification 4.4.4 Skin friction as a result of heave in the vicinity of the pile

Sommario/riassunto

This handbook provides a complete and detailed overview of piling systems and their application. The design and construction of piled foundations is based on Eurocode 7 and DIN 1054 edition 2010 as well as the European construction codes DIN EN 1536 (Bored piles), DIN EN 12699 (Displacement piles) and DIN EN 14199 (Micropiles). These recommendations also deal with- categorisation of piling systems,- actions on piles from structural loading, negative skin friction and side pressure,- pile resistances from static and dynamic pile test loading as well as extensive tables with the pile
