

Table of Contents

Chapter 1 GENERAL

- 1-1 SCOPE OF THE HANDBOOK
- 1-2 CONTEXT OF THE HANDBOOK
- 1-3 PRESSING/JACKING BY THE SILENT PILER (THE PRESS-IN METHOD)
- 1-4 APPLICATION OF EMBEDDED STRUCTURES BY THE PRESS-IN METHOD
- 1-5 RELATED STANDARDS AND GUIDELINES

References in Chapter 1

Chapter 2 PLANNING AND INVESTIGATION

- 2-1 PLANNING
- 2-2 INVESTIGATION

References in Chapter 2

Chapter 3 DESIGN

- 3-1 INTRODUCTION
- 3-2 GENERAL MATTERS IN DESIGN
- 3-3 DESIGN OF CANTILEVER TYPE EMBEDDED RETAINING STRUCTURES
- 3-4 DESIGN REPORTS

References in Chapter 3

Chapter 4 CONSTRUCTION

- 4-1 CONSTRUCTION OVERVIEW
- 4-2 CONSTRUCTION PLAN
- 4-3 CONSTRUCTION
- 4-4 SUPERVISION, PROCESS CONTROL AND MONITORING

References in Chapter 4

Addendum I (Press-in applications)

I-1 CONSTRUCTION APPLICATIONS

- 1-1 Classification in Terms of Press-in Method for the Ground
- 1-2 Press-in System to Overcome Restrictive Conditions on Site
- 1-3 Press-in System with constant spacing between piles (Skip Lock System)
- 1-4 Combined Wall Structures (Combi-Gyro method)
- 1-5 Application Examples of the Press-in Method for Different Uses

I-2 TABULATED LIST OF SILENT PILER

- 2-1 Piler for U-shaped steel sheet pile (U-Piler)
- 2-2 Piler for Z-shaped steel sheet pile (Z-Piler)
- 2-3 Piler for Hat-shaped steel sheet pile (Hat Piler)
- 2-4 Piler for Zero sheet pile (Zero Piler)
- 2-5 Piler for H-steel sheet pile (H-steel Piler)
- 2-6 Piler for light-weight steel sheet pile (Trench Piler)
- 2-7 Piler for straight steel sheet pile (Straight Piler)
- 2-8 Piler for steel tubular sheet pile (Steel tube Piler)
- 2-9 Piler for steel tubular pile with rotary cutting (Gyro Piler)
- 2-10 Piler for concrete sheet pile (Concrete Piler)
- 2-11 Piler for PC wall
- 2-12 Piler for combined wall structure (Silent Piler F301)

I-3 TABURATED LIST OF CLAMPING CRANES

- 3-1 Clamping crane CB1
- 3-2 Clamping crane CB2
- 3-3 Clamping cranes CB3, CB4 and CB5

I-4 INSTALLATION METHOD OF REACTION STAND

- 4-1 Installation method of reaction stand for steel sheet pile
- 4-2 Installation method of reaction stand for steel tube
 - 4-2-1 Reaction stand (general)
 - 4-2-2 Hydraulic clamping-type reaction stand

I-5 AUXILIARY EQUIPMENTS

- 5-1 Piler stage
- 5-2 Radio control holder
- 5-3 Pile roller
- 5-4 Soil scraper
- 5-5 Pile laser

I-6 CONSTRUCTION CASES OF JOINT MEMBERS IN CASE WATER CUTOFF IS NECESSARY

- 6-1 Water cutoff joint with equal angle steel
- 6-2 Water cutoff joint with hard rubber tube seal
- 6-3 Water cutoff material of steel sheet pile joint

- I-7 EXAMPLE OF RESTORATION MEASURE BY THE PRESS-IN METHOD
IN DAMAGED LEVEE
 - 7-1 Overview
 - 7-2 Safety judgement programme of enclosure wall construction
- I-8 FIVE PRINCIPLES IN CONSTRUCTION

Addendum II (Items on Design)

- II-1 DESIGN OF CANTILEVER TYPE EMBEDDED RETAINING STRUCTURES/WALLS
 - 1-1 General Matters in Design
 - 1-2 Consideration of Wall Structures
 - 1-3 Stability of Excavation Bottom
 - 1-4 Overall Stability
 - 1-5 Effects on Surrounding Structures
 - 1-6 Structural Detail
- II-2 DESIGN CALCULATION EXAMPLES
OF CANTILEVER TYPE EMBEDDED RETAINING WALLS
 - 2-1 Road 1: Cantilever type embedded steel sheet pile retaining wall
 - 2-2 Road 2; Cantilever Steel Tubular Pile Retaining Wall
 - 2-3 River: Cantilever Revetment Protection Wall (Steel Sheet Pile)
 - 2-4 Harbour: Cantilevered Port and Harbour Quaywall (Steel Tubular Sheet Pile)
 - 2-5 Railway: Temporary Earth Retaining Work (Steel Sheet Pile)
- II-3 OTHER APPLICATION CASES
 - 3-1 Combi-Gyro Method
 - 3-2 Aseismic Reinforcement of Coastal Levees
 - 3-3 Underground Bicycle/Car Parking

References in Addendum II

Addendum III (Reference of the researches)

- III-1 Researches on the characteristics of the Press-in Method
 - 1-1 Automatic acquisition and application of the construction data
in the Press-in Method
 - 1-2 Reduction of the resistance of the ground during jack-in
 - 1-3 Recovery of resistance of the ground with time after jack-in
 - 1-4 Effect of dilatancy or suction on increasing the pull-out resistance
 - 1-5 Performance of the jacked-in pile