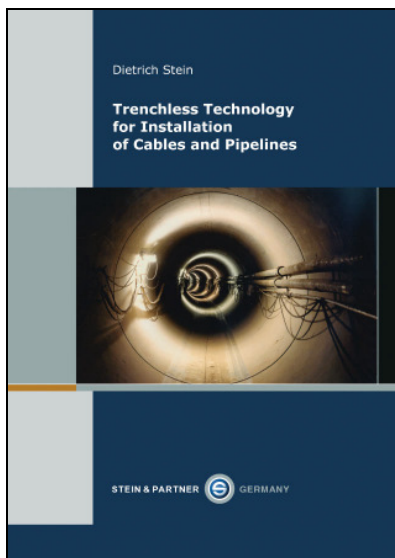


University-Professor Dr. Dietrich Stein

Trenchless Technology for Installation of Cables and Pipelines



September 2005. 766 pages DIN A4 with 845 figures and 307 tables. Hardcover. English edition.
EUR 120.00
ISBN 3-00-014955-4

Offer to buy do only apply to Stein & Partner!

Trenchless installation of cables and pipelines has achieved a very high level of technology due to the constant further development of machine and method technology and this makes possible the installation of almost all types of supply and disposal lines (utilities) independent of their nominal size or their external diameter or the geological and hydrogeological limiting conditions in an ecologically friendly and enclosed method of underground construction.

This book deals with the wide range of trenchless techniques, which are comprehensively described for the first time in this form. In the presentation of each individual method, besides the description of methods of operation and sequence as well as equipment, value was set especially on the areas of application and limitations of use according to the latest knowledge.

The aim of this book is to provide those persons and companies involved with the planning and execution of the trenchless method

of line installations with well founded and up-to date information.

In addition, the comprehensive and detailed discussions of the construction methods and all associated fields permit an optimal economical and technical choice of the techniques for a particular application to be made with reference to the numerous local and system-dependent limiting conditions.

Because of their special features, which cause other methods to be applied, the fluid flushing directional drilling method (HDD) has been dealt with separately in a 2nd volume.

This English edition has been revised by Dr. Ray Sterling, Contractors' Educational Trust Fund Professor of Civil Engineering and Director of the Trenchless Technology Center (TTC) at Louisiana Tech University.



FROM THE CONTENTS

- **Line Networks**
 - Type and structure of the networks or systems (Gas, water, district heating, drain and sewer systems, telecommunication, electricity)
 - Positioning and arrangement of lines
 - Trees and vegetation
- **Variations of Line Installation**
 - Single installation
 - Multiple installation
- **Explanations of Some Specific Basic Terminology**
- **Geotechnical Fundamentals and Investigations**
 - Fundamentals of geology
 - Mechanical fundamentals of soil and rock (geotechnical parameters)
 - Classification of soil and rock
 - Fundamentals of hydrogeology
 - Geotechnical investigations
- **Unmanned, Non-Steerable Techniques**
 - Impact moling
 - Pipe ramming with closed pipe front
 - Horizontal jacking with expander
 - Pipe ramming with open pipe front
 - Uncased auger boring
 - Hammer drilling
 - Horizontal jacking with expander
- **Unmanned, Steerable Techniques – Soil Displacement Techniques**
 - Steerable impact moling
 - Horizontal drilling with displacement hammer
- **Unmanned, Steerable Techniques – Pilot Pipe Jacking**
 - with soil displacement
 - with soil removal
- **Unmanned, Steerable Techniques – Microtunnelling**
 - with auger spoil removal
 - with hydraulic spoil removal
 - with pneumatic spoil removal
 - with other mechanical means
 - with soil displacement
- **Manned Techniques – Pipe Jacking**
 - Shield machines
 - Intermediate jacking stations
 - Use of lubricating and support media for reducing skin friction
 - Jacking with curved line path
 - Ventilation
- **Flushing Fluid and Flushing Fluid Technology**
- **Jacking Steering, Measurement and Monitoring**
 - Jacking steering
 - Jacking measurement
 - Jacking monitoring
- **Starting and Target Shafts**
 - Selection of the location and quantity of shafts
 - Form and dimensions of shafts
 - General requirements of shaft construction
 - Shaft construction methods
 - Exit and entry openings
 - Structural calculations
- **Pipe Materials and Joints**
- **Calculation for Jacking Pipes**
 - Loads perpendicular to the pipe axis
 - Loads in the direction of the pipe axis
 - Assessments in the direction of the pipe axis – determination of the permissible jacking force
 - Jacking pipes with cross sections diverging from the circular
 - Calculations for pipes installed using pipe ramming
 - Calculation of pipes installed by means of the soil displacement method
 - Seismic effects on pipes
- **Soil Deformations**
 - Types of soil deformation
 - Methods of calculation

ORDER FORM

Yes, please send me the following title for 120.00 EUR a piece:

Stein, Dietrich
**Trenchless Technology for
Installation of Cables and
Pipelines**

Number of copies: _____

In EU countries the local VAT is effective.
Postage and packing will be charged. As
long as our stock will last.

The purchaser will bear the respectively
bank transfer costs!

Mode of payment: Invoice (exceptions
outside Europe reserved)

Delivery and Invoice address:

___ private ___ business

Surname, First Name

Firm/Institution

Department

Street

Postcode, City

Country

Tel.

Fax

e-mail

VAT identification number (EU members only)

Please pass this order form to

Prof. Dr.-Ing. Stein & Partner GmbH
Konrad-Zuse-Straße 6
44801 Bochum
Germany

Tel.: +49 234 5167 - 0

Fax: +49 234 5167 - 109

e-mail: office@stein.de

Visit us at <http://www.stein.de>

Thank you for your order.

