

IKT - Institut für Unterirdische Infrastruktur

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Welcome



**IKT - Workshop on
Pipe Jacking Simulation 2007**
in cooperation with
Emschergenossenschaft

**1:1 Scale Simulation
Research Results
International Experience**

**14th February 2007
Gelsenkirchen, Germany**

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At IKT-Institute for Underground Infrastructure, Germany, a unique pipe jacking simulator has been build, with support of the Ministry of the Environment and Conservation, Agriculture and Consumer Protection of the State of North Rhine-Westphalia (MUNLV).

This facility allows 1:1 scale tests of DN 1600 pipes, on a total pipeline length of 15 meters with simulated length of up to 80 meters.

Statements on your own work are appreciated in the afternoon session!

Deadline for Abstracts:
31st January 2007

Symposium language:
English

Register and abstracts:
pipejacking@ikt.de

Symposium Fee: 75,- Euro (incl. lunch and beverages)

Programme

9:30	Reception and Registration
10:00	Welcome Dipl.-Ing. Roland W. Waniek, IKT Dipl.-Ing. Norbert Stratemeier, Emschergenossenschaft
Session I IKT-Pipe Jacking Simulator ND 1600	
10:15	Technical Approach for Practical Simulations on 1:1 Scale Dr.-Ing. Bert Bosseler, IKT
10:45	Presentation of IKT-Simulator - Testing Hall - Dipl.-Ing. Martin Liebscher, Dipl.-Ing. Andreas Redmann, IKT
12:00	Lunch Break and Discussion
Session II Workshop: International Experiences	
13:30	Contributions from Participants Presentations 5-10 min, each Full papers are not required! All abstracts will be included in a workshop summary.
15:30	Discussion and Outlook Research Initiatives, Perspectives for Cooperation and Research on a European Level
16:00	Closure

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Pipe Jacking Simulation 2007

**Technical Approach for
Practical Simulations on a 1:1 Scale**

*Dr.-Ing. Bert Bosseler
- Research Director -*


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Underground Infrastructure, Germany

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Pipe Jacking System and Process

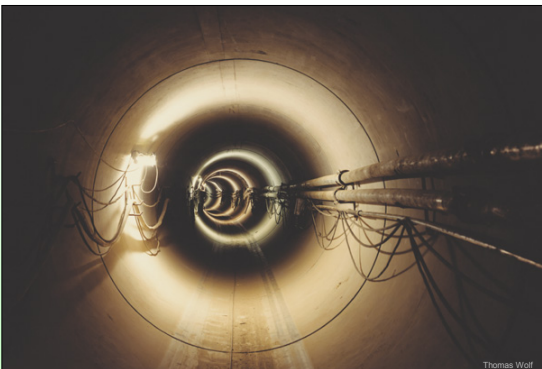


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Pipe Jacking: Objectives



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Problems, Uncertainties, Questions



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Pipe Jacking: Issues

Pipe, Pipe Joints, Pressure Transmission, Jacking Process, Curves

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Pipe Jacking: Main Issues

Pipe String Geometry, Pipe Joint Characteristics....

Quelle: Braumann Tiefbau

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Pipe Joint Elements and Materials

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Pipe Joints: Pressure Transmission Materials

Spannung - Gesamtverformung jeweils nach dem 1. Und 20. Zyklus

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Pressure Transmission: Material Imperfections

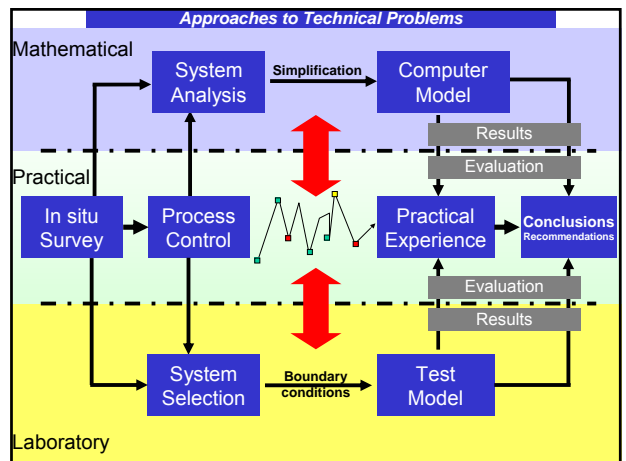
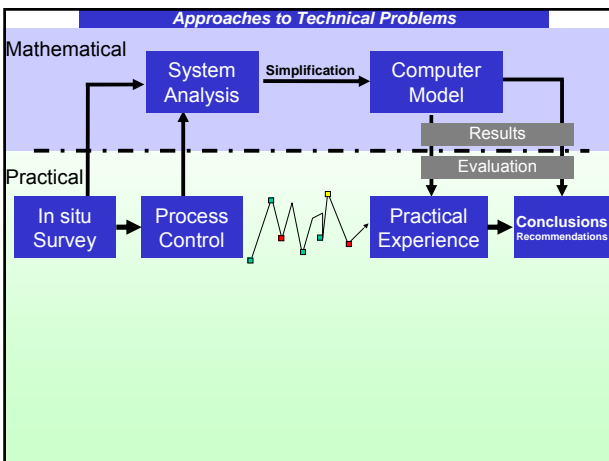
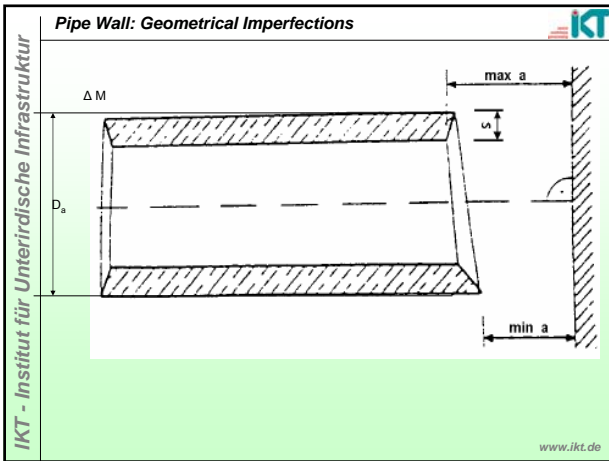
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Pipe Joints: Pressure Transmission Rings

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Single Pipe Axial Pressure Tests

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Single Pipe Axial Pressure Tests

Failure Mode:

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Pressure Transmission Rings: Material Tests

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Pipe String Behaviour on 1:1 Scale

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IKT-Pipe Jacking Simulator

Jacking Station (4 x 2.000 kN)

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IKT-Pipe Jacking Simulator

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