

LARGE PIPES and SEWERS

International Exchange of Knowledge and Experience for Large Pipe and Sewer Operation, Maintenance and Rehabilitation

Large-diameter pipes form the backbone of drain, sewer and other conduit systems. The construction, maintenance and renovation of these structures are of great importance in assuring continuous safe operation. This task confronts system operators with great challenges, however.

The IKT - Institute for Underground Infrastructure will be focussing, as its main topic at the IFAT 2012 on the subject of "LARGE PIPES and SEWERS", and will provide interested system operators with a platform for the interchange of experience and an accompanying programme covering all facets of "Large pipes and sewers".

New developments and demonstrations at the IFAT 2012:



IFAT 2012
LARGE PIPES and SEWERS
www.large-sewers.org

research
testing
consulting



Quality Assurance, consulting, appraisals

- Sewer/conduit engineering, pipe-jacking
- Inspection and cleaning
- Sewer and conduit renovation





Large pipes and sewers

(IKT - Institute for Underground Infrastructure)

- Consulting, e.g. inspection of large-diameter conduits
- Quality Assurance, e.g. large-diameter reinforced-concrete and plastic pipes, pipe-jacking
- Appraisals, e.g. crack widths in reinforced-concrete pipes
- Testing, e.g. of pipe and fill materials



International Large Pipes and Sewers Network

(IKT - Institute for Underground Infrastructure)

The "LARGE PIPES and SEWERS" network provides operators of large-diameter drains, sewers and other conduits with a platform for the interchange of knowledge and experience. The aim of the network is that of concentrating knowledge and practical experience concerning the construction, maintenance and renovation of large-diameter conduits, and of processing and providing it for use by all participants.



The MAC method for assessment of stability

(Eau de Paris)

The "MAC" non-destructive inspection procedure is a method developed in France for assessment of the stability of large conduits requiring renovation. Pressure cylinders on the inspection unit generate and measure deformations in the conduit, and thus determine the stiffness of the pipe/soil system.



Measuring robots for control of pipe-jacking operations

(Emschergerossenschaft, IKT: Golden Manhole Cover 2011)

Measuring work during pipe-jacking of diameters imposes high physical burdens on the staff involved. An autonomous measuring robot has been developed to simplify pipe-jacking measurements - an idea which was rewarded with the IKT's "Golden Manhole Cover" for 2011. The measuring staff now no longer needs to enter the pipe string, and the time-savings achieved compared to conventional measurement amount to up to 75 percent, thus also reducing idling times on site.



Inspection of large-diameter conduits

(StEB Köln, Cologne Municipal Drainage Services)

The condition of large-diameter drains and sewers must be determined at regular intervals. For this purpose, a workgroup has formulated a so-called "Supplementary Technical Contractual Condition" (abbreviated ZTV in German), in which the requirements for assessment of the structural and operational condition of large-diameter conduits are specified (generally diameters of greater than DN 1200 mm).

IFAT

HALL B4

ENTSORGA

STAND 243

PROGRAMME

MAY 7 TO 11, 2012

IKT staff will be available on the institute's stand throughout the exhibition for interchange of experience in the construction, operation and renovation of large-diameter drains, sewers and other conduits. The MAC method for the assessment of the stability of large-diameter pipes and sewers will also be shown.

Experts will be available on the IKT stand for discussion and for individual advice on the days listed on the right.



WE LOOK FORWARD TO YOUR VISIT!



MONDAY, MAY 7, 2012

- 14:00 to 16:00 h** **International Large Pipes and Sewers Network**
 Presentation, discussion and individual advice
 UK Germany France
- 16:00 to 18:00 h** **Inspection of large-diameter pipes**
 Discussion on ZTV inspection of large-diameter conduits (StEB Köln)
 UK Germany

TUESDAY, MAY 8, 2012

- 10:00 to 12:00 h** **Installation, Maintenance and Renovation of Large Pipes**
 Results of research and testing
 UK Germany

WEDNESDAY, MAY 9, 2012

- 12:00 to 14:00 h** **Quality Assurance for large-diameter plastic pipes**
 Practical notes and individual advice
 UK Germany France
- 14:00 to 16:00 h** **Structural Assessment of large-diameter pipes**
 Presentation of the MAC test system by Eau de Paris
 UK Germany France
- 16:00 to 18:00 h** **Installation, Maintenance and Renovation of Large Pipes**
 Results of research and testing
 UK Germany France

THURSDAY, MAY 10, 2012

- 10:00 to 12:00 h** **Quality Assurance in pipe-jacking**
 Measurement and force-transmission systems
 UK Germany
- 14:00 to 16:00 h** **Measuring robots for control measurement of pipe-jacking operations**
 1st Prize, "Golden Manhole Cover 2011", Emschergenossenschaft
 UK Germany
- 16:00 to 18:00 h** **Installation, Maintenance and Renovation of Large Pipes**
 Results of research and testing
 Turkey

FRIDAY, MAY 11, 2012

- 10:00 to 12:00 h** **Measuring and process technology for construction, inspection and renovation**
 including force-transmission systems and monitoring in pipe-jacking operations
 UK Germany

neutral
independent
non-profit institute



IKT - Institute for Underground Infrastructure

ABOUT IKT



IKT - Institute for Underground Infrastructure is a research, consultancy and testing institute specialized in the field of sewers. It is neutral and independent and operates on a non-profit basis. It is oriented towards practical applications and works on issues surrounding underground pipe construction. Its key focus is centred on sewage systems. IKT provides scientifically backed analysis and advice.

IKT has been established in 1994 as a spin-off from Bochum University, Germany.

The initial funding for setting up the institute has been provided by the Ministry for the Environment of the State of North-Rhine Westphalia, Germany's largest federal state.

However, IKT is not owned by the Government. Its owners are two associations which are again non-profit organizations of their own:

- a) IKT-Association of Network Operators:**
Members are more than 120 cities, among them Berlin, Hamburg, Cologne and London (Thames Water). They hold together 66.6% of IKT.
- b) IKT-Association of Industry and Service:**
Members are more than 60 companies. They hold together 33.3% of IKT.

You can find information on projects and services at:
www.ikt.de



IKT – Institute for Underground Infrastructure

Exterbruch 1
45886 Gelsenkirchen
Germany

phone: +49 209 178060
fax: +49 209 17806-88
email: info@ikt.de

IKT is located
ca. 30 min. off Düsseldorf
International Airport.

Published: May 2012
Circulation: 3.000 copies
Protective charge: 19,95 €