

PIANC Workshop
13-14th September 2011



Identification of the Challenges of Tomorrow

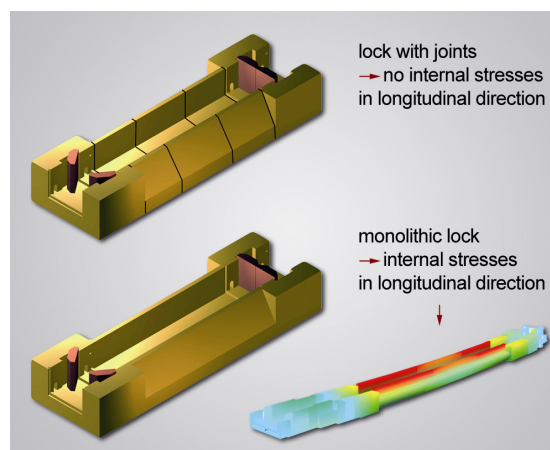
German point of view – construction of locks

By Jörg BÖDEFELD
BAW
GERMANY

PIANC
Setting the course

Challenges of Tomorrow

Monolithic construction



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Federal Waterways Engineering and Research Institute

Challenges of Tomorrow
Structural Engineering · Solid Structure · Jörg Bödefeld · 13. Sept. 2011

Challenges of tomorrow

Monolithic construction

Working joints !

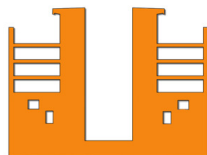


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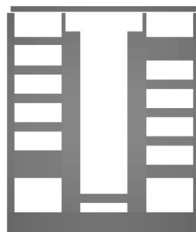
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Challenges of tomorrow

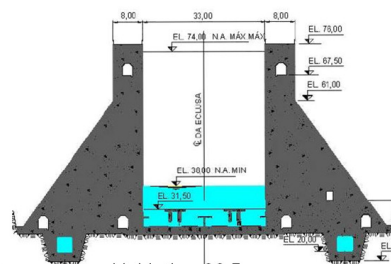
High Rise Navigation Lock



Hubhöhe: 23,0 m



Hubhöhe: 38,0 m



Hubhöhe: 36,5 m

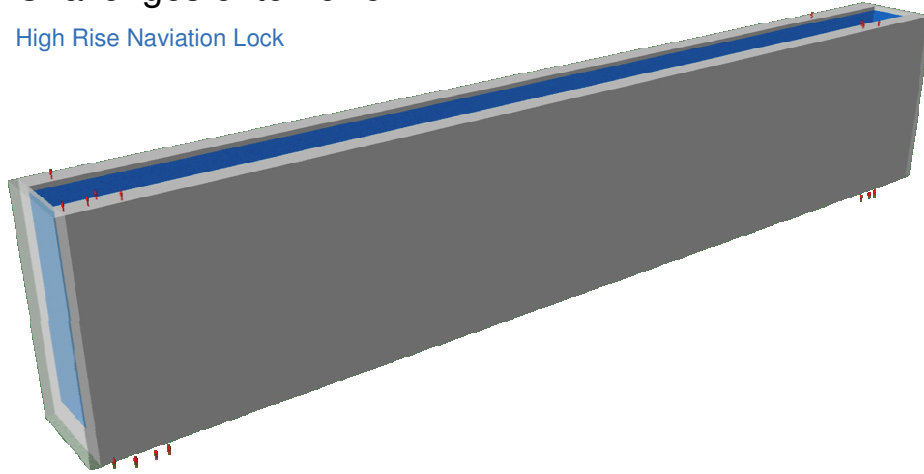


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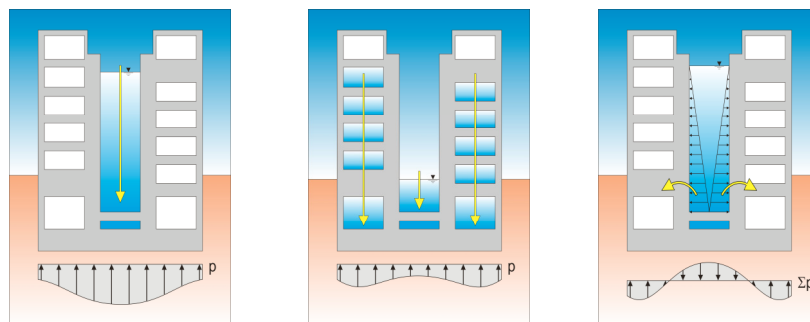


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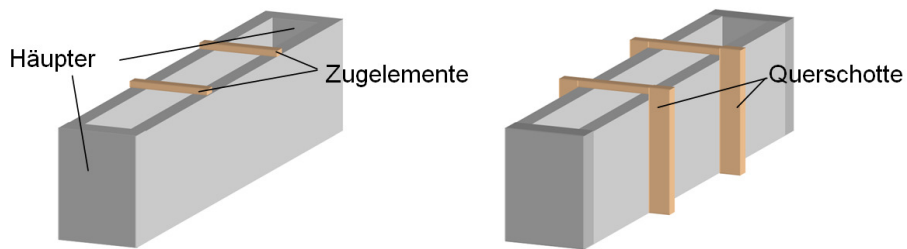


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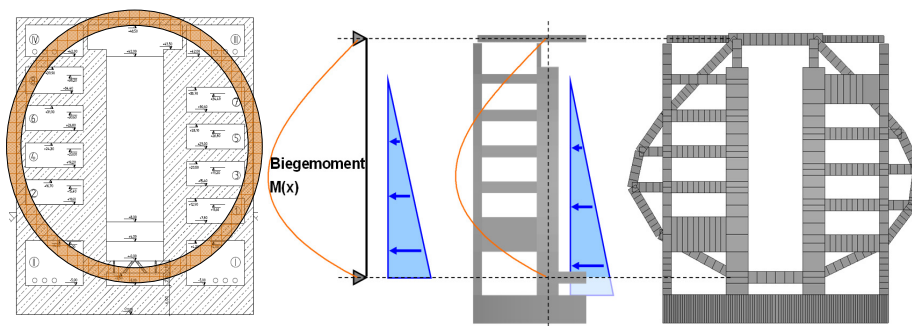


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Challenges of tomorrow

Standardization

- Past:

optimal solutions of each project

- regional standards
- a lot of one of a kind
- complex and expensive
- big efforts for planning
- low cost certainty



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Challenges of tomorrow

Standardization

- Future:

standardization

- low cost solutions
- safe level of quality
- efficient planning, tender and construction
- modular packages



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Challenges of tomorrow

Standardization

- First steps:
 - Lengthening of 27 locks at one river with a construction kit
 - Filling/emptying through the gates for locks with a small lift
 - Standardized gates for locks with a small lift
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