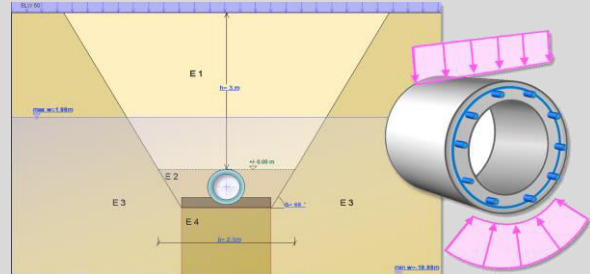


## RTpipe

11.10.301 Buried pipes

### Buried pipes according to ATV-A 127 / DWA-A 127

- Reliable calculation and design concept
- In consideration of ATV-A 127 and DWA-A 127
- Clear graphical input and optimum control of all changes
- Quick and safe editing of different pipe systems, pipe types and support cases
- Comprehensive design of pipelines buried in liquid soil
- Integrated report of results featuring configurable lists and graphics



RTpipe has an object- and graphic-oriented working environment and can be used for the calculation of buried pipes that are integrated in open ditch or under embankment condition according to working sheet ATV-DVWK-A 127. The application of buried pipes considers all standard types of pipes stated in the ATV-A 127: depending on the pipe type, they are treated as rigid or as flexible, mouldable pipes.



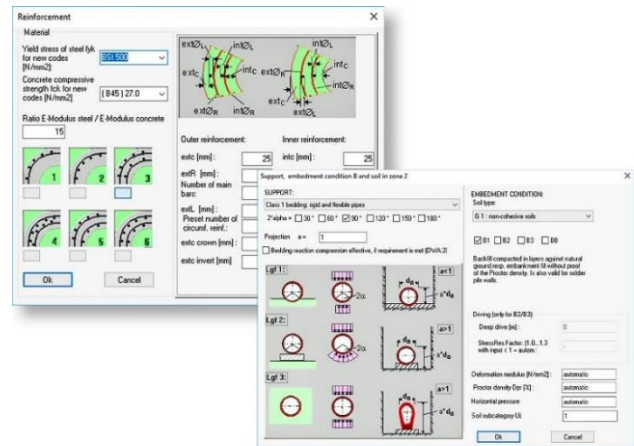
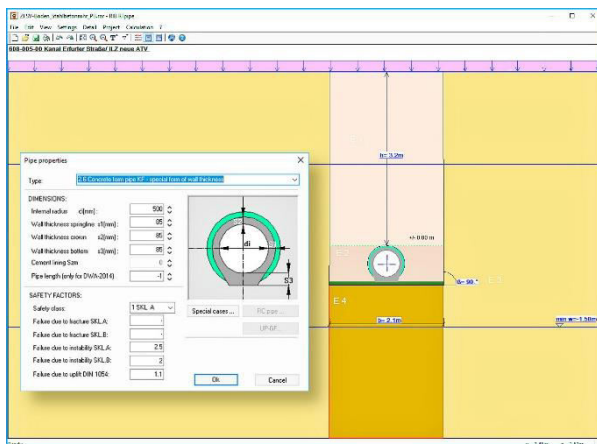
Tel: +49 711 7873-157  
E-Mail: [structuralengineering\[at\]rib-software.com](mailto:structuralengineering[at]rib-software.com)  
[www.rib-software.com/structural-engineering](http://www.rib-software.com/structural-engineering)

RIB Software GmbH  
Managing Directors: René Wolf and Tobias Hamacher  
Headquarter Stuttgart, Local Court Stuttgart HRB 783426.

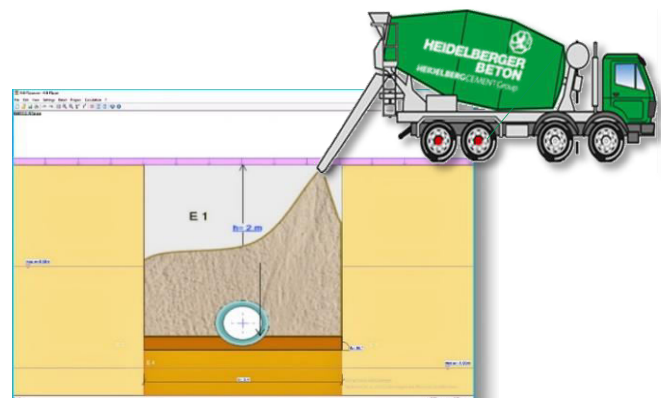
### RTpipe Features

The following calculation options are supported:

- analyses for circular pipes with/without base and egg-shaped pipes
- consideration of different wall thicknesses in cross-bar, crown and base of concrete and reinforced concrete pipes
- design of the reinforced concrete pipes optionally according to DIN 1045, DIN 1045-1, EN 1992-1 and according to national annexes for DE, AT, SK/CZ & UK optionally for normal or high-performance concrete



- single- or double-layer formation of reinforcement
- rough calculation of the steel weight of the circular and longitudinal reinforcement per meter



- consideration of the DIN EN 1916 and DIN V 1201+1202 in the case of reinforced concrete design
- analysis of fatigue according to DIN 1045-1 paragraph 10.8 for calculated stresses in cracked state for road and airplane traffic loads with  $2 \cdot 10^6$  and railway traffic loads with  $10^8$  stress cycles as default setting.

# Product Information

- consideration of soil stresses due to dead load
- calculation of the bulk loads depending on concrete cover and pipe diameter
- enhanced loading and calculation approaches for fluidized soils (TFS) including the analyses of the fluidity, sedimentation tendency as well as self-compaction of the fluidized soil and the safety against uplift of the pipes
- consideration of traffic loads for regular vehicles, railway traffic and design air planes
- classification of reinforced concrete pipes according to the required European standards with the calculation of the equivalent apex pressure force and the required load class LC

## Complete report of results

The results document contains installation details, soil parameters, load assumptions, internal forces and stress analysis across the pipe axis. It is possible to configure the result report before generating the final printout. Using a dialog box, all required results including graphics can be compiled, printed or transferred to MS-Word.

