

DISINFEX Software for Baffle Tank Design

DISINFEX, unique software, aids reliable Disinfection through improved Baffle Tank Design via our Design Service or on Licence

Capabilities

- Accurate prediction of CCT and SR tank hydraulics
- Chlorine decay, THM kinetics and tank hydraulics combined
- 'What-if' analyses of different tank designs
- Hydraulic and kinetic simulations in less than 5 minutes
- Standard Windows 3.x / 95 / NT user interfaces
- Operation without special training

Design is Critical

Modelling or measuring hydraulics is critical because Chlorine Contact Tanks (CCTs) are used to provide contact time for disinfection. Residual chlorine protects water in Service Reservoirs (SRs) and the distribution system but CCTs and SRs have often been inadequately designed. Poor hydraulics result in short circuiting and dead zones, resulting in higher risks of infection and THMs.

CCTs need 'Plug-Flow' hydraulics for optimum efficiency: The design of Baffles, Inlets and Outlets for CCTs determines performance.



Real data produced by physical modelling

Benefits

- Rapid optimisation of CCT and SR hydraulics
 - Uses: tank length, depth, No of baffles, inlet and outlet types
 - Applies to existing and new tank designs
 - Designs are analysed much faster than CFD or physical models
 - Can be used by engineering and operations staff
- **DISINFEX** minimises the risk of failure:
 - Reduced microbiological failures with improved hydraulics
 - Avoidance of excessive chlorine dosing
 - Evaluation of CCT and SR hydraulic effects on THM formation

DISINFEX Software

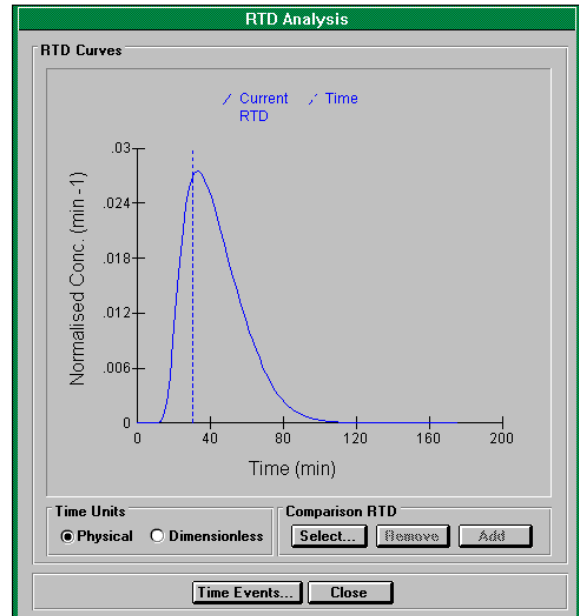
5 Stages of Use

- Entering Physical Data – Inlets, Outlets, Channel types and dimensions, and operation
- Displaying an RTD
- Displaying tabulated time events
- Entering Kinetic Data
- Displaying Kinetic Results

The 'Physical Data' window is divided into several sections:

- Tank Geometry:** Inlet Type: Overflow Weir; Outlet Type: Overflow Weir (Channel End); Tank Dimensions: Length: 10 m, Width: 6 m; Channel Orientation: Two diagrams showing flow directions; Number of Channels: 3.
- Operating Details:** Depth: 2.1 m; Required Contact Time: 30 min; Flow: 4 Mid.
- Detailed Description:** Ickwell WTW, Design 1.

Buttons at the bottom include 'Display RTD...', 'OK', and 'Cancel'.



Comparison of RTDs from different options is also available.

Design Service or Licence

BHR Group provides this unique design facility in-house. DISINFEX software licences are also available for purchase as a standalone, multi-user system including:

- Simple software installation from Floppy Diskette
- Detailed User Manual on DISINFEX application
- Telephone support help line available

Contact us for more details or visit our website

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