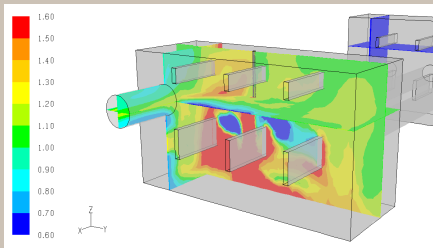
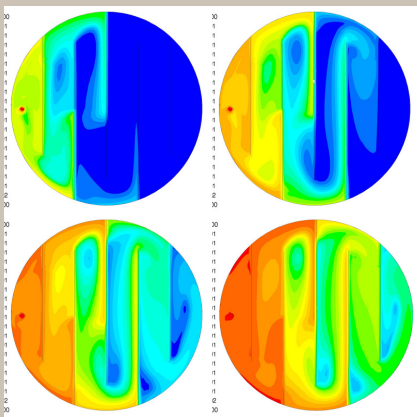


“Where will our knowledge take you?”

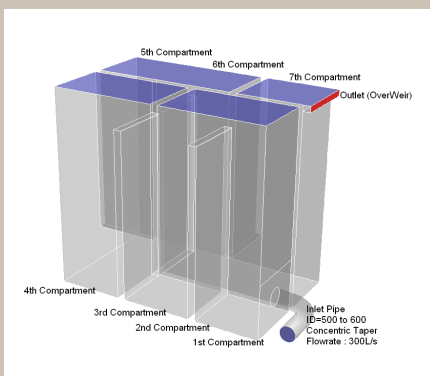
Computational Fluid Dynamics (CFD) In Water Environment



Lime solution concentration in the post UV treatment tank. The lime dosing, mixer and tank design validation.



Chlorine mixing time history in a typical circular clear water storage tank with baffle walls.



Ozone contactor design validation. Flow characteristics, hydraulic efficiencies and flow residence time have been provided as results.

Drinking Water Treatment

Within the drinking water industry, BMT WBM has worked for project engineers, design engineers and system engineers to validate designs and solve complex flow problems.

Typical CFD applications are aimed at minimizing the risk of under-performance or over design during the concept and detail design stage of the drinking water treatment components. Project examples include assessments of disinfectant mixing and retention time in mixing and storage tanks, UV treatment systems and ozone treatment tank.

The use of CFD has also been applied to provide flow analysis for existing and new drinking water treatment systems

By utilising BMT WBM's visual CFD results, engineers and designers have a greater opportunity to make quick and confident decisions early based on and scientific data. This saved potential re-construction costs, improved performances and minimized risks during operations.

The CFD experience included the following key service area:

- Numerical tracer testing
- Chlorine, Lime, Fluoride mixing design evaluation
- Ozone and UV treatment system flow and performance analysis
- RTD(Residence Time Distribution) prediction
- Ct, Rt and Inactivation of microorganisms prediction
- Reservoirs and Dam turbidity and flow mixing analysis
- 3rd part review on water treatment system flow design
- Flow analysis related to Monitoring and Detection

To communicate with a CFD specialist at BMT WBM please contact:

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