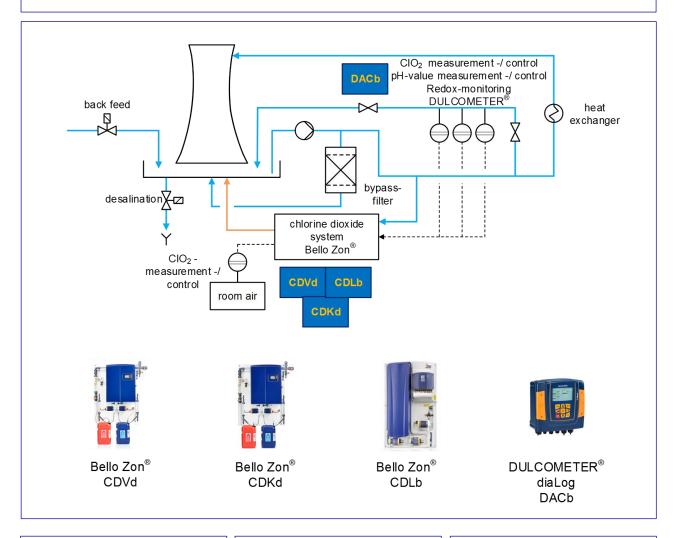
CIO₂ - Systems

Cooling water disinfection

Cooling water disinfection CIO₂



Task and requirements

- Fast disinfection at the lowest possible application concentrations
- Avoidance of biofilm and legionella
- Reduction of chemical residues and disinfection by-products
- Automatic adaption to changed cooling tower load due to climate, dirt input and circulation capacity

Operation conditions

 Cooling water with different degrees of contamination (e.g. organic compounds)

Application notes

- Continuous and volumeproportional CIO₂ dosage of 0.5 – 1.2 ppm or daily multiple shock dosage of 0.5 – 1.2 ppm
- The basic demand for ClO₂ should be determined in experiments
- The additives in the cooling water must be adapted to CIO₂
- CIO₂ Dosing point: Into the cooling tower cup or directly into the cooling water flow
- Redox monitoring: Measured values of 580 - 700 mV have proven themselves in many cases. Redox sensors with gold electrode

Solutions

- Chlorine dioxide system Bello Zon[®]
- Measurement and control by DULCOMETER®/DULCOTEST®

Benefits

- Fast disinfection, short reaction times and no formation of chlorinated by-products
- Can be used in alkaline pH ranges with favorable corrosion properties
- Effective against biofilm and bio-corrosion and thus optimal heat transfer
- No resistance to germs
- Measured value-dependent adaption to cooling water qualities possible

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