

Technologies for Cooling Water Systems

Throughout cooling water operations, from make-up and system water to blowdown treatment, Dow integrates novel and advanced technologies to help companies achieve cost savings, operational efficiencies, and environmental goals.

Antiscalants



Antiscalants, with world-class performance, play a key role in helping keep operations running free of deposits, avoiding heat transfer loss and downtime. Dow's patented OPTIDOSE™ dosage monitoring system facilitates safety without product overuse.

Recommended products:

- <u>ACUMER</u>™ <u>1000 series</u>
- ACUMER[™] 2000 series
- ACUMER[™] specialty grades

Ion Exchange



Ion Exchange resins efficiently remove ionic impurities and can produce softened, partially or fully demineralized water up to ultrapure water quality. An excellent choice as a pretreatment or post-treatment to RO and UF units, ion exchangers reduce residual TDS for process, cooling and boiler feedwater systems. Selective removal of metallic, organic and ionic trace contaminants with Dow ion exchange resins can treat blowdown waste streams to render them safe for reuse or discharge.

Recommended products:

- <u>AMBERLITE</u>™ <u>Ion Exchange Resins</u>
- <u>AMBERJET</u>™ <u>Ion Exchange Resins</u>
- AMBERSEP™ Ion Exchange Resins
- <u>DOWEX MARATHON</u>™ <u>Ion Exchange Resins</u>

Microbial Control



Microbial Control solutions help reduce biofouling and control microbial challenges, reducing biofilm on heat exchangers and spray nozzles, with reduced risk of corrosion versus other technologies. This helps you improve water quality to meet local regulatory requirements and reduce the risk of pathogens, with a portfolio of liquid and solid products to meet your handling, transportation and storage needs.

Recommended products:

- AQUCAR[™] Water Treatment Microbiocides
- KATHON[™] Microbiocides
- $\underline{\mathsf{ROCIMA}}^{\scriptscriptstyle\mathsf{M}}$ $\underline{\mathsf{Microbiocides}}$

Particle Filtration



Particle Filtration treats difficult feedwater up to 10,000 mg/L of suspended solids without frequent filter changes and in the presence of oil. Prevent or reduce fouling from entering the cooling system with a full or side-stream filtering. An excellent choice as either a stand-alone unit or as a pretreatment for downstream UF and RO, it helps significantly reduce fouling, maintenance, downtime and consumables costs, while extending asset life.

Recommended products:

- <u>TEQUATIC</u>™ <u>PLUS F-75 Filter</u>
- TEQUATIC™ PLUS F-150 Filter

Reverse Osmosis/Nanofiltration



Reverse Osmosis/Nanofiltration, using globally recognized Dow technologies, offers an excellent balance between efficient contaminant removal, demineralization, reliability and cost-effectiveness. Dow RO and NF elements remove a broad range of molecules and ions helping to increase the number of cooling tower cycles, reducing water intake and the need for chemicals, by enabling reuse and decreasing the impact of poor or variable make-up water on cooling system management.

Recommended products:

- <u>DOW FILMTEC™</u> <u>ECO-440i Elements</u>
- <u>DOW FILMTEC</u>™ <u>HRLE-440i Elements</u>
- DOW FILMTEC™ BW30XFR-400/34i Elements
- <u>DOW FILMTEC™ SEAMAXX™ Elements</u>
- DOW FILMTEC™ SW30HR-370/34i Elements

Ultrafiltration



Ultrafiltration reduces colloids, particles and bacteria in a continuous system, helping to deliver higher reliability and lower maintenance with a smaller system footprint. An excellent choice as a pretreatment for downstream units like RO, UF helps reduce the impact of poor or variable make-up water on cooling system management.

Recommended products:

- DOW IntegraPac™ Skids
- <u>DOW IntegraFlo</u>[™] <u>Modules</u>
- <u>DOW</u>™ <u>Ultrafiltration SFP-2880 Modules</u>

Learn more about Dow's expertise in cooling water treatment.

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