



WATER TREATMENT AT POWER PLANT

# Cooling Water Blow-Down Product Recommendations

Cooling tower blowdown is often too impaired to be reused without treatment and is typically sent directly to the facility's wastewater treatment plant. This imposes a hydraulic load on the wastewater treatment system. More importantly, a tremendous amount of relatively clean water is wasted, adding significant cost and discharge compliance complexity. Dow can work with you to deliver the optimal solution for your needs, using robust, reliable, fouling-resistant filtration and purification technologies to recover and return up to 90% of blowdown water for makeup water use.

TECHNOLOGY	PRODUCT	APPLICATION	FEATURES
<b>ULTRAFILTRATION MODULE AND SKIDS</b>	DOW IntegraFlux™ SFP-2880XP Module	Suspended Solids Removal	High permeability and high mechanical strength hollow fiber Polyvinylidene fluoride (PVDF) membranes. The modules provide excellent performance, industry leading membrane area with low energy and chemical consumption. XP fiber provides up to 35% higher permeability than previous generation modules improving operating efficiencies and productivity.
	DOW™ Ultrafiltration SFP- 2880 Module		High mechanical strength hollow fiber PVDF membranes. The modules provide excellent performance with industry-leading membrane area.
	DOW IntegraPac™ IP-77XP Skid		The skids are pre-engineered, standardized and ready to assemble. Comprising of DOW IntegraPac™ modules (standard and XP fiber), auxiliary parts and piping the skids can significantly streamline design, assembly, and installation. Flexible sizing with 6-22 modules per skid.
	DOW IntegraPac™ IP-77 Skid		
<b>REVERSE OSMOSIS ELEMENTS</b>	DOW FILMTEC™ FORTILIFE™ CR 100	Demineralization from Challenging Feedwater Source	State-of-the-art solution to tackle tough fouling coupled with excellent salt rejection.
	DOW FILMTEC™ ECO PRO-400		State-of-the-art solution to deliver high salt rejection at low operating pressure reducing CAPEX and OPEX.
	DOW FILMTEC™ BW30XFR-400/34		Established high fouling resistance and fouling removal efficiency coupled with very high rejection proven at broad TDS range.
	DOW FILMTEC™ BW30XFRLE-400/34		Improved fouling resistance as well as efficiency of element's cleaning combined with low energy consumption and good water purity.
	DOW FILMTEC™ BW30-400/34		Consistent and reliable high operational performance coupled with increased productivity comparing to BW30-365.
	DOW FILMTEC™ BW30-365		Established industry reference product providing consistent, high performance and long element life with decades of proven performance.
<b>ION EXCHANGE</b>	AMBERLITE™ IRC120 Na	Softening	General-purpose, durable resin offers a good balance of capacity and strength resulting in long lifetime for co-flow regenerated systems.
	AMBERLITE™ IRC200 Na		Highest physical stability for harsh applications and co-flow regenerated systems involving appreciable oxidative potential or high temperatures.
	AMBERLITE™ IRC83 H		General-purpose high-capacity dealkalization and softening resin with improved operating capacity demonstrated in high TDS Na form operation.
	AMBERLITE™ SCAV4 Cl	Scavenging	Removal of high load hydrophilic and hydrophobic NOM at neutral to alkaline pH, with excellent resin lifetime and long, stable performance even under challenging operational conditions. It is the go-to organic scavenger for the bulk removal of NOM, and especially useful as RO pretreatment.

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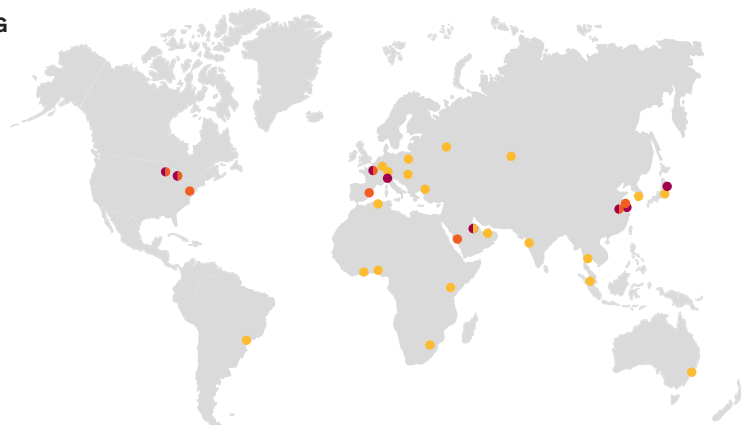
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**Water & Process Solutions**

7600 Metro Blvd.  
Edina, MN 55439

**For more information, contact our Customer Information Group:**

Asia Pacific	+86 21 3851 4988
Europe, Middle East, Africa	+31 115 672626
Latin America	+55 11 5184 8722
North America	1-800-447-4369

[dowwaterandprocess.com](http://dowwaterandprocess.com)

WARNING: Oxidizing agents such as nitric acid attack organic ion exchange resins under certain conditions. This could lead to anything from slight resin degradation to a violent exothermic reaction (explosion). Before using strong oxidizing agents, consult sources knowledgeable in handling such materials.

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