MIEX® Mini Treatment Systems
Fluidized Ion Exchange Pretreatment Specifically Designed for Smaller Packaged Plants

The MIEX® Mini is a packaged ion exchange system that uses MIEX® or MICo® Resins to remove targeted species from water and wastewater streams in low flow applications. Unlike other MIEX® models, the MIEX® Mini utilizes downflow “in situ” regeneration – but does utilize upflow fluidized treatment and MIEX® resins. Two Mini systems on line can alternate for continuous duty; plant expansions are easy with the addition of redundant units. With the MIEX® Mini, water treatment plants continue to receive the pretreatment benefit of DOC reduction, without the additional capital expenditure of the separate regeneration skid and controls. The MIEX® Mini is MIEX® made simple.

MIEX® Mini System Features
• Standardized treatment modules of 50-300 gpm
• Small footprint
• Simple and reliable operation
• Minimal energy requirements
• Optional effluent tank and transfer pump for pressurized applications.
• Low installation costs
• Low operating costs

Treatment Benefits
Due to the flexibility of its placement in the treatment train, the MIEX® Mini offers many benefits over other treatment alternatives.

The resin is not typically impacted by suspended solids and as such, can be used in various locations throughout the treatment train. When used upfront of existing treatment processes, many downstream benefits may be observed due to a reduced chemical demand.
How the System Works
Raw water is fed to the base of the reactor vessel for providing upflow fluidization hydraulics. Inclined plate settlers at the top of the reactor vessel assist with resin/water separation. Treated effluent overflows into collection launders and to downstream treatment processes. After the pre-defined volume of water has been treated, flow stops and the resin regeneration processes occur. Water is drained from the vessel, and a brine solution downflows through the settled resin bed, regenerating the resin. The regeneration cycle takes approximately 3 hours, after which the Mini system will resume treating water.

Utility Requirements
• Located on a covered concrete pad (with protection from freezing) or in an enclosed building.
• Interconnecting piping and valving
• Access to single and/or 3 phase power supply
• Disposal of concentrated brine
• Water treatment plant controls integration