

AQUALOGIC CLOSED-LOOP TECHNOLOGY



30 GPM System with 90% effluent reuse

NEW REGULATIONS IMPACT INDUSTRY

The U.S. metal finishing industry is under a virtual mandate to minimize or eliminate discharges of wastewater to sewers and surface waters. The growing body of industrial experience has demonstrated that the most effective 0-discharge programs meet the following criteria:

- **Recover** process solutions and rinse water for reuse wherever possible.
- **Purify and Recycle** the waste stream at the source, rather than end of pipe.
- **Convert** formerly hazardous waste to a recoverable raw material.
- **Reduce** non-recoverable waste to a manageable volume for off-site disposal.
- Offer **flexibility and reliability** with a minimum requirement of maintenance.

MODULAR SYSTEMS FOR THE 21ST CENTURY

Aqualogic's modular technologies meet these requirements and allow manufacturing facilities to eliminate or greatly reduce discharges to local sewers and surface waters. The systems include:

1. **Atmospheric and Vacuum Evaporators** for drag-out recovery and waste concentration.
2. **Resinator** ion exchange for recycling dilute rinsewaters, reducing water flow.
3. **Automatic Batch Treatment** modules for treatment of concentrates or metal reclaim (as pure hydroxides).
4. **MicroMagic Microfilter Systems**, compact design with pH and temperature impervious graphite membrane to extend cleaner life by removing oily contaminants.
5. **Microfiltration Systems** for metal hydroxide removal to meet strict standards and filter effluent for RO recovery.
6. **Reverse Osmosis (RO) Systems** to recycle up to 90% of water used providing low conductivity rinse water.
7. **Acid Recovery Systems** to maintain pickling efficiency by removing dissolved metals and returning active acid to the process while reducing treatment costs.
8. **Electrowinning Units**, for plating metals from drag-outs and evaporator concentrates, reducing hazardous waste volume.
9. **Coalescers** to separate floating oil from effluents reducing waste volumes and improving effluent treatability.

ENGINEERED TURNKEY SYSTEMS

No one technology or system will be optimum for every application. Our modular systems approach offers proven technologies uniquely applied to **individual situations** to give the metal finishers optimum flexibility, performance, and reliability in implementing a 0-discharge program tailored to their needs. Aqualogic also offers **complete turnkey design and engineering services**, including our in-house laboratory, integrating the above equipment to assure that the project for each facility meets the objectives, is correctly installed, and is completely operational. This includes accessory support equipment, including lift stations, rinse transfer systems, pH and ORP controllers, and other solution monitoring and handling equipment which are used to balance the system and assure smooth and reliable performance. Our finishing engineers will often recommend additional rinse stations where feasible to allow the system to operate most efficiently without creating excessive effluent volumes for treatment or disposal.