

IQC-IQCR-IQCF

Isothermal Quench Furnaces

For Austempering & Martempering

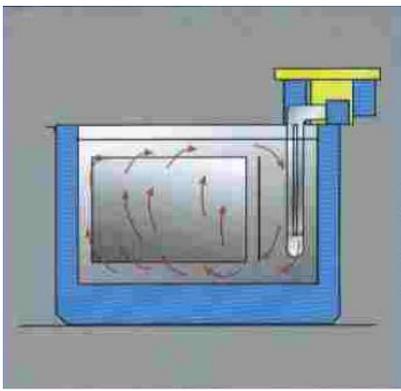


Ajax IQC-IQCR-IQCF quench furnaces may be custom engineered to meet virtually any size or production requirement, including manual or automatic operation, multiple stations, choice of filtration and cooling technologies, and integrated ECONOSAL™ salt reclamation/recovery systems. Available work-handling options include our unique UNIHOIST™ system, which may be designed for high-speed transfer of thin cross-sections or normal speed for larger (thicker) cross-sections.

Benefits of Quenching in Salt

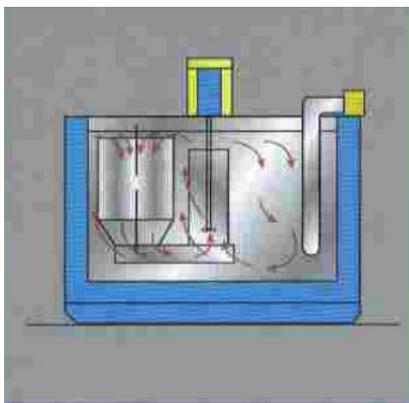
Ajax IQC-IQCR-IQCF quench furnaces combine the proven advantages of salt bath technology with the latest advances in thermal processing, resulting in increased throughput, superior material qualities, and low overall production costs. Quenching in salt provides excellent temperature uniformity, minimal distortion and protection from cracking, with the ability to process a wide range of geometries. Electric or gas-fired models are available.

- Less distortion than oil quenching; usually finish machining can be done before hardening.
 - Toughness and ductility are increased while same through-hardness is achieved.
 - Lower internal stresses, due to separation of thermal from transformation stresses, result in minimal distortion and less likelihood of cracks.
 - Rapid Cooling allows heavier sections to be treated.
 - Low maintenance due to heavy duty, modular design and unique sludge removal system.
 - Optional water addition increases severity of quench, allowing isothermal quenching of heavier cross-sections and marginal materials.
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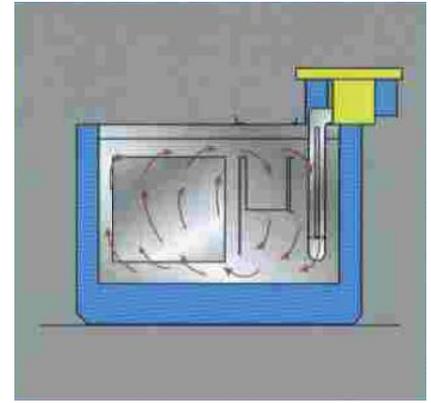
Type IQC

Designed for quenching parts heated in air or controlled atmosphere.



Type IQCR

Permits upward or downward flow in quench header. Controlled flow maximizes quench severity. Best for distortion-sensitive parts.



Type IQCF

Incorporates unique sludge removal system for salt bath heated parts.

What sets Ajax Quench Furnaces apart from the competition:

Ajax quench furnaces incorporate the latest labor-saving and safety features, and offer significant advantages that result in more uniform processing and superior metallurgical properties.

These include:

- Available cooling systems such as forced air, or internal cooling coils with water injection.
- Superior bath temperature uniformity using either electric or gas systems with constant or variable speed propeller agitation, which provides a uniform flow through the workload to remove heat quickly.
- Prewired cubicle with interlocking circuit breaker disconnect for operator safety.



Quench Cooling Coils



Ajax Unihoist™



Control Panel

- Continuous filtering for removal of contaminants from bath to optimize quenching efficiency. The Ajax Sludge Dumper is easily installed on new furnaces or retrofitted to existing equipment.
- Optional addition of water to the quench bath enhances quenching power, allowing isothermal quenching of heavier sections. Manual or automatic dosing systems are available.

About Ajax Electric Company

With nearly three quarters of a century of experience in metals processing, Ajax Electric is uniquely qualified to help you select the best equipment for your application. Because we design and build our equipment in-house, we are able to apply and ensure comprehensive quality control at each phase of the manufacturing process. Strong aftermarket support is provided by our service and replacement parts departments, with on-site service, training and "turnkey" installations also available.



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Need Help?

Call us toll-free at (800) 516-9916 to speak to one of our applications engineers. We'll be happy to assist you with any technical questions you may have concerning salt bath furnaces.