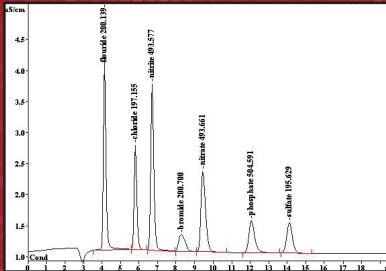


## Why Cleanliness Testing?

You make a great product and your clients rely on you to maintain a high level of quality. IMR Test Labs can assist you in ensuring manufacturing processes don't leave oils, particulates and other contaminants behind that can compromise your product's performance, reliability and reputation.

IMR's cleanliness testing experts have worked to ensure we get a complete and accurate picture of the contaminants involved. We can work with a variety of solvents, from reagent grade, to common cleaners or your proprietary blends.

IMR also offers sealed clean-wipe kits that can be used at the production line, resealed and sent to us for analysis. This allows you to improve production processes on a



much faster timeline. Our chemists provide thorough and insightful analysis of anions such as chloride, fluoride, bromide, nitrate, nitrite, sulfate, phosphate, weak organic acids and more.

We also have the support of our metallurgical, corrosion and failure analysis departments to assist with any additional analysis needed.



### IMR Test Labs

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**Nadcap Accreditation:** Ithaca (MTL, NMTL), Louisville (MTL), Portland (MTL), Singapore (MTL), Suzhou (MTL)

**A2LA Accreditation:** Ithaca (1140.01 / 1140.02), Louisville (1140.03/1140.04), Portland (1140.07), Singapore (1140.10), Suzhou (1140.09)

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IMR TEST LABS

## Cleanliness Testing Services



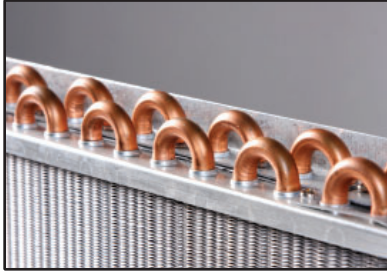
- Air Conditioning/Refrigeration
- Nuclear Power Industry
- Aerospace
- Electronics
- Automotive/Transportation
- Medical/Dental Implants

[www.imrtest.com](http://www.imrtest.com)



## Refrigeration & Air Conditioning

Despite your best efforts at cleaning your systems before delivery, manufacturing processes can leave oils and particulates behind, compromising the quality of heating and cooling systems.



Over time, exterior oils can attract additional dust and debris which can interfere with the heat transfer efficiency of the system, and eventually cause premature failure.

These oils can also oxidize, creating acidic compounds that are not compatible with metals. This will cause leakage due to formicary (ant's nest) corrosion.

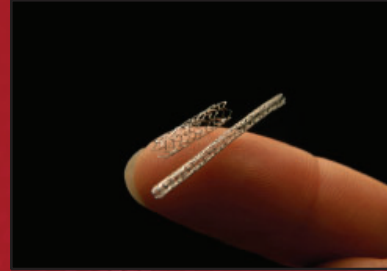
IMR Test Labs has developed methods, side-by-side with major manufacturers to ensure we get a complete view of what's inside and outside of your cooling systems.



## Medical & Dental Implants

In no other industry is the cleanliness of a product as important as in devices which will be implanted into human patients.

Medical components must be free of particles and specific ions so that the patient won't suffer infection or worse, rejection of the implant.



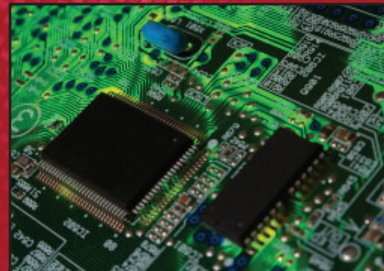
Whether the part is a dental post, or a full hip replacement, IMR can analyze these surfaces by ferroxyl swab testing. This is used to detect free iron on implants at very low levels.

We also offer total organic carbon testing and anion analysis.

## Electronics

Electronics drive everything we do today. Contaminants can cause failures in circuit boards and wiring.

Our chemists can evaluate contamination down to ppm or ppb levels.



## Aerospace & Transportation

Many transportation components are parts of sealed systems. Failure of these parts can cause catastrophic accidents, endangering lives.

Industry standards occasionally require



unusual solvents to flush parts. IMR can work with everything from reagent grade, to common cleaners or your proprietary blends.

## Nuclear Power Industry

Components destined for nuclear power facilities have stringent cleanliness requirements due to the inherent danger involved in failures.

IMR has successfully passed NQA-1 audits from numerous manufacturers. Our quality system is in compliance with 10 CFR 50 Appendix B and NQA-1, as required by the nuclear power industry.

