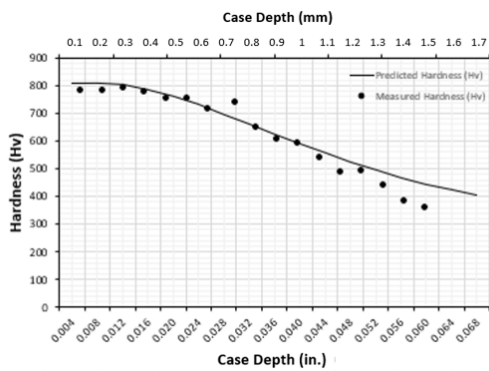


EXPERT R&D TEAM

Alberta Industrial is invested in providing timely, professional technical support to our customers. This is why AIHT is supported by a team of 5 engineers – 3 with Ph.D.'s in Metallurgy and 1 with a Masters in Materials Engineering.

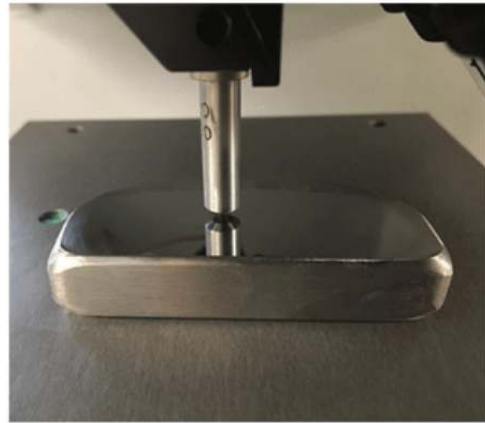
Our experts have 50 years of combined experience in the field of engineering including an intimate understanding of materials, heat treatments, and surface engineering technologies. Such a level of technical expertise is rarely found even in much larger companies. With this powerhouse of experience and fundamental understanding, AIHT is confident that we can find a solution to even your most challenging projects.

RECIPE DESIGN AND OPTIMIZATION



Combining fundamental process understanding with the reliability of our automated furnaces gives unparalleled predictability and consistency. Process parameters are chosen based on fundamental materials science. This approach leads to shorter development cycles and improved control over our processes. **If we don't have a suitable recipe in our catalogue, we will do the development work for you!!!**

METALLURGICAL LAB



Our metallurgical lab is **fully equipped**, allowing for internal development without relying on any third-party labs. Our facilities include:

- 2 Full time Technicians
- Wire EDM and machining capabilities
- Microhardness Testing and polishing capabilities
- ISO 9001:2015 3rd party calibration
- Optical Microscope
- Stereomicroscope
- Tensile/Compression Testing
- Charpy Impact Testing
- One-of-a kind large scale Fatigue Tester
- Residual Stress Testing
- ASTM G65 Testing

TESTING POLICY

Our state-of-the-art equipment removes the need for batch testing. We pass these cost savings on to our customers. Non-destructive testing methods are used where appropriate for quality screening. Test coupons are run with every load, and are subject to surveillance auditing. **Batch testing and comprehensive furnace charts available upon request.**

Recipe Development and Quality Control



EQUIPMENT



You are only as good as your equipment! Our state-of-the-art nitriding furnaces utilize temperature and atmosphere sensors to control processing conditions in real time. Closed-loop feedback ensures operating conditions are representative of the recipes prescribed by our expert metallurgists.

RELIABILITY



Touchscreen controls and graphic-user-interface simplify operation and remove the need for manual intervention by an operator. Recipes are pre-programmed by the engineering team, and the process is fully automated.

Every recipe has been developed from fundamental material science, and has been tested to ensure compliance. State-of-the-art sensors and controls are used to ensure repeatability beyond what is possible with manual operation. Sensors are tested

regularly to ensure they are functioning properly. Case depth analysis is done through random sampling. Batch testing is available upon request.

QUALITY CONTROL

Our process features industry leading safety measures to protect both our staff and customer parts. In the unlikely event of a process interruption, our furnaces will undergo a nitrogen purge to ensure parts return to room temperature in an inert atmosphere. The process can then be resumed without any adverse effects. Our comprehensive Quality Management System ensures full traceability.



TECHNICAL EXPERTISE



What sets our process apart is our focus on fundamental material science. With a team of 3 Ph.D. Materials Engineers, we are truly unique in the industry. We use this strength to design optimized procedures, and the highest quality results. With over 30 active recipes, we have something to fit every need.

CUSTOMER SERVICE

At AIHT it isn't just good enough to sell a process. We want to sell you the best process for your application. **Our experts are here to serve you!**