## 





Improvement of both ferrous & nonferrous metals is a primary objective of ACI. Working in the emerging field of cryogenic processing for over a decade, we've developed technology and processes that weren't previously possible. Our endeavors have garnered a wealth of facts and information, allowing us to better assist you.

Cryogenic processing allows many metal components to take on superior properties. Properties that allow substantially longer part life, higher productivity and less down time, all equating to savings for you.

> Every week at our headquarters in Wisconsin, we put many of our customers parts through the deep cryo process. Parts such as blanking and forming dies, cutting tools of all types, drills, taps, hobs, broaches, lathe bits, saw blades, and carbide inserts and solids.

A growing part of this business centers on racing and high performance products. We have cryo treated engine blocks, rotating components, bearings, brake discs and pads, and even boat

propellers. Spark plugs and electrical contact devices are being evaluated. We even run copper components used in welding equipment, to improve conductivity and increase electrode life. Sporting goods, like aluminum bats, alloy tennis racquets and golf equipment, are now being cryo processed.

Aluminum, with it's high surface residual stress, responds incredibly well to the deep cryo process becoming very stable dimensionally, standing up to the most demanding machining.

Knowing the far ranging benefits of our cryogenic processes, we wanted to make cryo-processing attainable by those who need it. We're proud to say, this new technology and it's benefits are now within the grasp of both small and large businesses. Talk with our metallurgical experts about your needs. ACI is here as a partner to provide solutions and help your business run smoother.

## features & benefits

- Lengthened work life of parts & tools results in substantial savings.
- Lowering residual stress improves dimensional control in aluminum, titanium & other materials.
- High alloy steel cutting tools stay sharp longer, fewer micro-cracks, less chipping.
- Down times reduced due to fewer service needs for parts and tools.
- Cryogenics is not just a surface treatment, it's effects are seen through the entire cross section.
- Cryogenic treatment is a one time treatment & the benefits obtained are permanent.
- Cryo-treatment is compatible with tool, or component treatments (TiN, Chrome, Teflon, etc.)
- Cryogenic treatment can be carried out on new, as well as used tools.
- Cryogenic processing does not cause dimensional changes.



Our European Affiliate: °Cryogenics International Limited 7 Brunel Way Fareham Hampshire PO15 5TX ENGLAND tel: int + 44 1489 886722 fax: int + 44 1489 886733



PATENTS PENDING

ADDRESS ALL INQUIRIES TO:

American Cryogenics Inc. 305 Travis Lane o Waukesha, WI 53186 USA phone: 414 513-0486 fax: 414 513-0485

http://www.americancryogenics.com e-mail: aci@americancryogenics.com

## INTERNATIONAL AUTHORITY FOR METALLURGICAL CRYOGENIC PROCESSING

Member of:



of Metal Treating Institute