

# What Is Deep Cryogenics

300 Below, Inc., is involved in the process of Deep Cryogenic Tempering and has developed an advanced, computer controlled processing system for reliably treating materials.

As our name implies, we treat engine components and parts at minus 300° Fahrenheit to improve their properties. Computer technology allows us to regulate temperatures to 1/10 of a degree, accurately manipulating Cryo treatment in accordance with the mass of your engine part.

Deep Cryogenic Tempering creates a significant increase in abrasive wear resistance and durability. The increases in tensile strength, toughness and stability may couple with the release of internal residual stresses. The end results are *longer engine life, higher horsepower and less breakage.*

The one-time, irreversible treatment improves the entire structure, not just the surface, giving your engine stability only found previously in seasoned engines. Decrease the movement and increase your engine's performance and life.

## Ask The Experts

**Dr. Randall F. Barron**  
Louisiana Tech University  
Department of Mechanical Engineering

The number of countable small carbides increased . . . . This increase in carbides adds greatly to the wear resistance of a part . . . . Wear resistance improved by ratios of 2 to 6.6 times.

**Dr. Joan Alexandru and Dr. Constantin Picos**  
Polytechnic Institute of Jassy, Romania

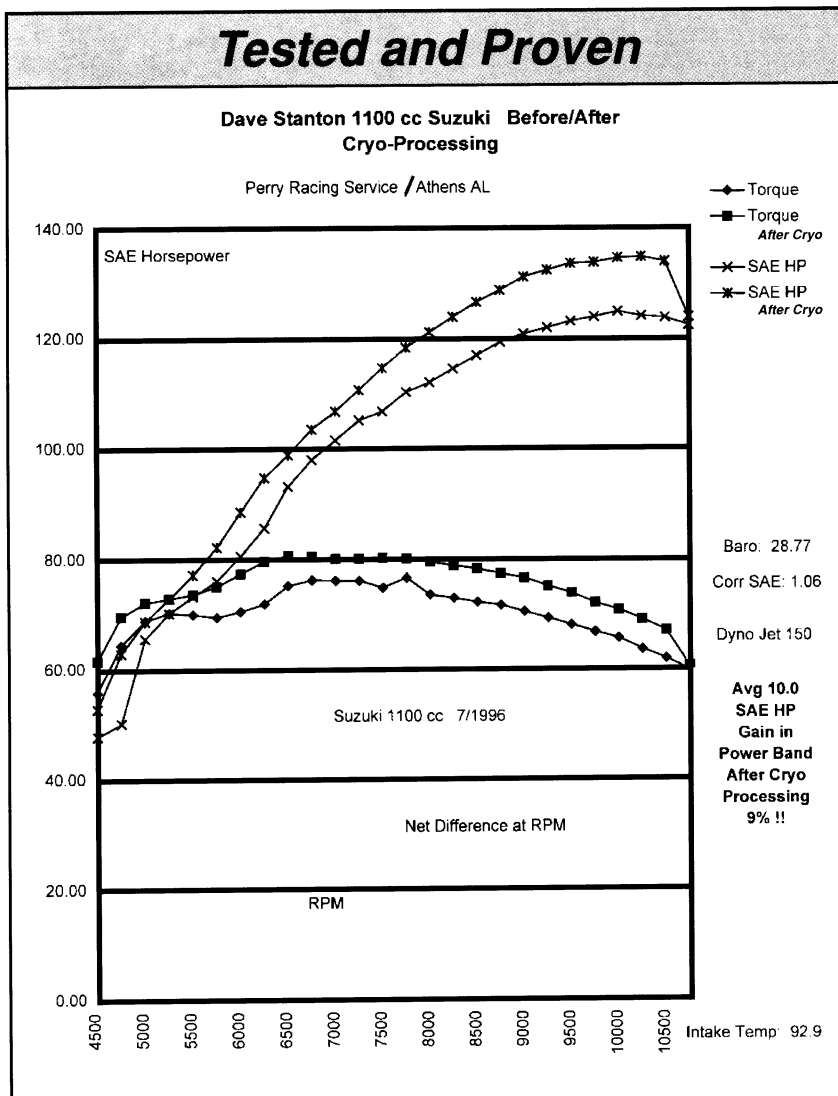
Using latest particle counter, was able to count "hardening" of metal as it changed at molecular level.

**Muroran Institute of Technology**  
Department of Mechanical Engineering  
Muroran Techno-Center, Japan

Study found Cryo Tempering increases wear resistance dramatically.

**Arizona State University**

Study of Cryogenically treated carbide tooling showed performance increases of up to 400 percent.



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