

## Cost-saving part treatment improves performance, fuel economy, and service life for performance vehicles.

Performance cars, trucks, boats, airplanes and commercial equipment will all benefit by having critical components treated with the CryoPlus process.

Engines deliver improved compression, fuel economy, and increased horsepower. At the same time, engine heads are less prone to cracking, engine vibration is reduced, and oil blow-by is reduced. Components are less prone to high-temperature operation problems—heads stay flat, components don't warp or distort, brake rotors last 40% longer, cylinders and pistons retain their shapes, allowing for better ring seal.

## Why have CryoPlus treat your parts?

- Increased durability
- Dramatically improved performance
- Improved fuel economy, increased horsepower
- Tighter tolerances on all of the engine specs
- Engines can run hotter without adverse effects
- Process releases stress and stabilizes metal
- Longer service life between re-builds
- Reduced cylinder, piston, and ring wear
- Eliminates engine component warping and distortion

## Here's proof: CryoPlus treatment extends tool life, reduces production time, and saves money.

*"Brake rotors require careful break-in and go through a stage where they warp and knock the pads, giving a poor pedal for a few laps. CryoPlus-treated rotors don't go through any of this. There is no surface cracking or crazing."*

**Pat Smith, Dyson Racing Team Inc.**  
Poughkeepsie, NY

*"The proof is in the starting. With cryo-treated parts, motors start quicker, spark plugs don't foul out anymore, and I get better gas mileage, too. I haven't changed spark plugs in six races, which is unheard of! And instead of changing valve springs every 400 laps—now it's 1000 laps. With CryoPlus, my motorcycle performs better than ever!"*

**Roy Hostetter, Hoss Cycle**  
Ashland, OH

*"I used to have to adjust my Yamaha motorcycle chain after the first run because it would stretch. After cryo-treatment, the chains don't stretch at all, and the treatment also keeps cam chains from breaking. I haven't broken a chain since I started cryo-treating all of my parts."*

**Lloyd Meeks, Meeks Racing**  
1995 Top Gas Winner  
Akron, OH

# CryoPlus®

Cool solutions to high tooling costs.

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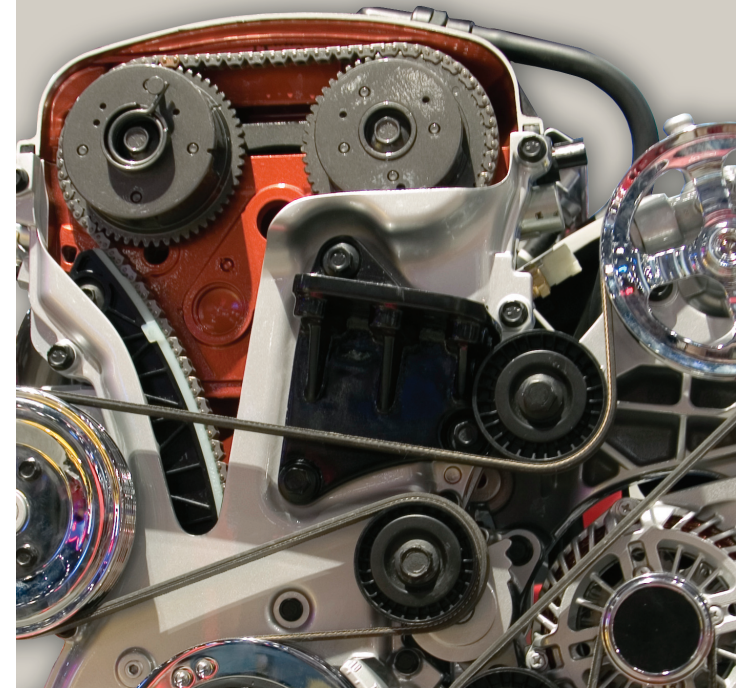
*Cryo-treat Your Parts for Unmatched Performance*

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Cool solutions to high tooling costs.

## Motorsports & Automotive

Cryogenic treatment dramatically improves engine and part performance and service life.



## What is Cryogenic Treatment?

Cryogenic tempering of automotive parts is a thermal treatment process that greatly improves the metal's physical characteristics. It is not a surface treatment; the entire mass is made stronger, more uniform, and more durable. Cryogenic treatment chambers utilize computer-controlled processors to chill metal parts to -300oF a prescribed duration—a process known as “cold soaking.” The chamber then returns the parts to ambient temperature, after which they are heated to +300oF for a period of time.

Race car, snowmobile, airplane, boat, personal watercraft, go-cart...every high-performance engine will benefit from cryo-treatment. High-tolerance parts remain stable and resist distortion, blow-by is reduced, and horsepower is increased. After treatment, your performance engine will experience increased horsepower, torque, dimensional stability and overall performance, as well as reduced friction, heat, distortion, and breakage. Heads, pistons, connecting rods, and crankshafts will deliver significantly longer service lives and strength, resulting in reduced operating costs over the life of the engine.

## Jump-start your performance with CryoPlus treatment for these parts, and more:

- Axles
- Brake Rotors
- Camshafts
- Clutch Plates
- Connecting Rods
- Crankshafts
- Cylinder Heads
- Cylinder Sleeves
- Engine Blocks
- Heads
- Lifters
- Piston Rings
- Pistons
- Planetary Gears
- Push Rods
- Rear End Gears
- Rocker Arms
- Spindles
- Transmission Gears
- Valve Springs
- Valves



## CryoPlus: A Leader in Cryogenic Processing

CryoPlus, Inc., is recognized as one of the leading cryogenics service-providers in the industry. CryoPlus, was established in 1994 to provide cryogenic services for the woodworking, logging, metal-forming, stamping, tool and die, shearing, slitting, welding, punching, musical, shooting, and racing industries. CryoPlus treats a wide variety of materials, including ferrous and non-ferrous metals, alloys, and carbides.

CryoPlus uses a computerized, liquid-nitrogen cryogenics processor engineered for maximum performance and efficiency. Both the cooling and heating cycles take place in the same 8,000-pound-capacity chamber in a microprocessor-controlled batch process. Liquid nitrogen flows through a spray distribution system inside the chamber and is vaporized into an expanded gas. The circulation fan inside the chamber ensures proper heat transfer during the process.

## CryoPlus Service

The CryoPlus treatment process takes approximately 36 hours. Materials received by Friday at noon are processed, repacked, and shipped out on the following Monday. CryoPlus is centrally located in Ohio for easy, cost-effective shipment of tools for treatment from throughout the country. Processing fees are based on the total weight of parts for treatment.

CryoPlus, Inc., is certified as a “Women’s Business Enterprise” by WBENC (Women’s Business Enterprise National Council).

## CryoPlus Cryogenic Processing Applications

*New or used parts may be treated.*

Aluminum baseball bats	Hammermills
Bearings	Harrow blades
Blocks	Hobs
Blow molds	Inboard jet pumps
Brake rotors	Jordan knives
Brass instruments	Key cutters
Broaches	Lathe knives
Bucket teeth	Lavel dies
Calendar knives	Lawn mower blades
Cams	Milling inserts
Chain saws	Pelletizer knives
Chipper knives	Perforators
Chopper blades	Pistons
Circuit boards	Plow shears
Circular saws	Press dies
Circular slitters	Progressive dies
Connecting rods	Punch dies
Copper resistance welding caps	Razor blades
Crankshafts	Reamers
Cultivator points	Rocker levers
Drill bits	Rod Pumps
Electronic cables	Router bits
End mills	Saw Teeth
Engines	Sewing needles
Envelope dies	Shear blades
Extruder barrels & screws	Shredding screens
Extruders	Shuttle bobbins
Feed screw tips	Sickle bars
Forging dies	Skate blades
Gears	Spades
Golf club heads	Splicers
Granulators	Tines
Gun barrels	Vacuum tubes

