MAXR™ Energy Efficient Technologies

MAXR™ 200 Anti-Friction Lubricant

MAXR 200 -Technology Overview

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MAXR 200™ is designed... as a concentrated "Metal Conditioner" for a wide range of applications including engines, compressors, bearings, gear boxes, transmissions, hydraulic systems and cutting tools. MAXR 200 is not a replacement for the application's primary lubricant, instead, MAXR 200 is blended at the correct ratio to the primary lubricant. MAXR 200 then utilizes the primary lubricant as a carrier/transport to distribute the MAXR 200 "Anti-Friction Treatment" throughout the equipment.

MAXR 200's patent pending..."active polar molecules" have been combined with synthetic components into a concentrated oil that is compatible with all conventional lubricants and all ferrous and non-ferrous metals/alloys. MAXR 200 provides superior anti-friction, extreme pressure, load carrying, anti-corrosive and boundary lubrication properties. As a "Metal Conditioner," MAXR 200 is radically different from "oil treatments" that only seek to fortify a lubricant oil with thickeners and particulate. Instead of merely treating the oil, MAXR 200 treats and protects where the friction damage actually happens-on the equipment's metal surfaces *(as proven by laboratory oil analysis of reduced wear metal particle count).*

MAXR 200 utilizes "molecular bonding" technology to form an electrochemical bond with the engine's metal surfaces. This "bond" forms a microscopic protective layer that becomes part of the metal surface and provides continuous lubrication for metal parts. These protected metal parts now slide past each other on molecules of MAXR 200 instead of metal. Due to this "bonding" process, MAXR 200 can extend the useful life of new or worn parts and even protect the engine components in the event of a catastrophic loss of oil.

Unlike other products... the MAXR 200 formula's "activated polar agent" does not include chemical elements of the "Halogen" group, particularly chlorine and fluorine, nor sulfur or phosphorous which may combine with hydrogen and form highly undesired (corrosive) acid. MAXR 200 does not contain PTFE (Teflon®) or any other particulates like powdered metal or plastics. MAXR 200 will not build up over time, alter design tolerances, clog filters, restrict oil ports, increase oil oxidation or otherwise contaminate the primary lubricant package.

The science behind MAXR 200's "Anti-Friction Treatment" operates due to... the ability of MAXR 200 to create an electrochemical bond with metal surfaces at the molecular level, which creates surface areas that have a significantly lowered coefficient of friction. This micro-level surface modification/smoothing effect occurs because the bonded MAXR 200 layer protects and prevents the microscopic jagged peaks (known as "asperities"), which are located on the surface of the metal, from interlocking with opposing asperities while in contact with other metal parts. Instead of interlocking and breaking off into even more, larger asperities, the jagged peaks are allowed to wear down smoothly and become rounded and flat (by a process called "plastic deformation"). Because the metal surfaces are now smooth and continually protected by the MAXR 200 layer, the primary lubricant is allowed to remain in a "hydrodynamic lubrication mode" (maintaining a fluid film at all potential points of contact), whether on sliding, rotating or inter-locking surfaces. Harmful "boundary layer lubrication" conditions (when metal-to-metal contact occurs), typically caused by machine start-up or periodic/cyclical heavy loading of the equipment, is dramatically decreased. Due to the protection that MAXR 200 provides, several significant operating improvements can be noted including: reduction in the wear metal particulate (copper, tin, iron, ect...) count found in the primary oil, reduced equipment operating temperatures, longer equipment life and less downtime caused by equipment failure or poor performance. As a result of this continual protection, the MAXR 200 layer also permits treated metal to remain lubricated even if the equipment's primary lubricant is lost or removed. This may preclude short-term failure and provide emergency lubrication protection in the event of accidental or catastrophic loss of primary lubricant.

MAXR 200 Anti-Friction Treatment

Illustrates a magnified view of the equipment's metal surface. Opposing metal peaks rub and break off causing harmful frictional heat, metal wear & oil degradation.

Jagged peaks are protected by the MAXR 200 layer & are then smoothed out dramatically allowing metal parts to slide past smoothly on the MAXR 200 molecular layer.

Benefits of Use

- Drastically reduces friction & wear & eliminates dry start up
- Reduces equipment operating temperature
- Reduces wear metals suspended in oil
- Inhibits corrosion/rust and leaves no deposits
- Improves equipment performance
- Reduces maintenance and down time
- Will not affect the equipment manufacturer's warranty