MAXR Energy Efficient Technologies

MAXR 200 Anti-Friction Lubricant

Hydraulic Treatment

Industrial Use — *Application Guide* **MAXR 200**

Application Uses

- ***Hydraulic Pumps***
- ***Hydraulic Motors***

Technology Description

MAXR 200™ is designed... as a "Metal Conditioner" for a wide range of hydraulic applications. MAXR 200's patent pending "active polar molecules" have been combined with synthetic components into a concentrated oil that is compatible with conventional lubricants and ferrous and non-ferrous metals/alloys. MAXR 200 provides superior anti-friction, extreme pressure, load carrying, anti-corrosive and boundary lubrication properties.

MAXR 200 utilizes "molecular bonding" technology to form an electrochemical bond with the equipment's metal surface. This "bond" forms a microscopic protective layer that becomes part of the equipment's metal surface. Due to this "bonding" process, MAXR 200 benefits include extended equipment life, reduced operating temperatures, and the extended useful life of the hydraulic oil. MAXR 200 utilizes the equipment's normal primary lubricant as a carrier to distribute the MAXR 200 treatment throughout the entire system.

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 particulate that can cause corrosion, alter design tolerances, increase oxidation or contaminate oil.

How MAXR 200™ Technology Works

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.

Directions for Use

Hydraulic Applications... Add MAXR 200 directly to the hydraulic oil sump at the correct ratio based on the equipment's operational requirement *(see" Hydraulic Ratio Usage" chart below).* If tolerances require a 0% change in the oil sump volume, first drain the amount of hydraulic oil equal to the amount of MAXR 200 being added.

- *If oil sump is oversized for the equipment, reduce the "Hydraulic System Usage Ratio", so as not to incur excessive expense. MAXR 200 functions as a metal conditioner, not as an oil additive. MAXR 200 only uses the primary lubricant as a treatment transport carrier.*

Hydraulic System Ratio Usage

Standard:	***= 7.5% (of the oil sump capacity)***
Severe Conditions:	***= 10% (of the oil sump capacity)***

Benefits of Use

- ***Drastically reduces friction & wear - particularly dry start-up wear***
- ***Reduced cavitation/foaming***
- ***Reduces frictional heat from operation***
- ***Inhibits corrosion/rust & leaves no deposits***
- ***Conditions seals***
- ***Reduces energy consumption***
- ***Helps extend useful life of hydraulic oil***
- ***Reduces maintenance and down time***
- ***Protects mechanical parts with a "molecular bonded" lubricant layer***
- ***Will not affect manufacturer's warranty***

Characteristics of MAXR 200

Synthetic Base Oil.....	PAO (Polyalphaolefin)
Specific Gravity.....	.928
* ASTM 92- Fire Point.....	420 degrees F
* ASTM 97- Pour Point.....	10 degrees F
* ASTM 130- Copper Corrosion...	1A (Non-Corrosive)
** OSHA CFR 1910.1200.....	Non-Hazardous

* American Society for Testing and Materials - ** Occupational Safety and Health Administration