LUBRITE HPF

A HIGH PERFORMANCE TEFLON-FIBER LUBRICATION SYSTEM

MERRIMAN

LUBRITE HPF IS A PERMANENT TEFLON®-FIBER LUBRICATION SYSTEM FOR HEAVY-LOAD APPLICATIONS.

Lubrite HPF is a proprietary* Teflon-fiber lubrication system designed to meet the demanding requirements of extreme-load and/or high-temperature applications. Loads up to 60,000 psi can be sustained under optimum conditions. Temperatures as high as 500°F can be accommodated indefinitely under reduced loads. Extremely low coefficients of friction, high resistance to wear and excellent thermal stability are additional benefits inherent in the Lubrite HPF system.

The Lubrite HPF concept

Lubrite HPF is a composite bearing design that utilizes a woven-fiber pad containing Teflon fibers bonded to a metal substrate. The unusual physical properties of the lubricating material accommodate previously unattainable combinations of load and temperature and make Lubrite HPF ideal for a broad range of specialty applications. Configurations available include flat plate, bushing, radial and spherical types as well as other unique geometric designs. Your Merriman Sales Engineer will be glad to discuss your particular application requirements and provide whatever assistance you may desire.

High pressure and high temperature capability

Under optimum conditions Lubrite HPF will accommodate loads up to 60,000 psi. At ambient temperatures reaching 500°F continuous loads of 6,000 psi can be maintained. Laboratory testing shows cold flow, a problem with many systems, to be virtually non-existent. No measurable cold flow has been detected during extensive testing.

® DuPont registered trademark

 * Patent Pending

Low coefficients of friction

Extremely low coefficients of friction can be attained with Lubrite HPF. Static (break-a-way) coefficients of friction as low as 0.01 have been obtained. At elevated temperatures dynamic coefficients of friction of 0.0025 or lower can be provided. This results in extremely smooth operation and eliminates undesirable "stick-slip" phenomena.

Wear resistance

High resistance to wear is a major performance advantage of Lubrite HPF bearings. Diametral wear in a continually oscillating bushing test measured less than 0.0005 inches over 100,000 cycles. A reciprocating plate test resulted in wear of 0.0009 inches for 200,000 cycles. The high resistance to wear and physical strength characteristics of Lubrite HPF also permits accommodation of misalignment in the system.

Hostile environments

Since Lubrite HPF contains no substances susceptible to electrolytic or chemical action, it is universally inert, making it well suited for applications where immersion in or subjection to contamination from foreign substances is expected.

Mating surfaces

The material and finish required for surfaces which will mate with the Lubrite HPF surface are generally tailored for each specific application.

Applications

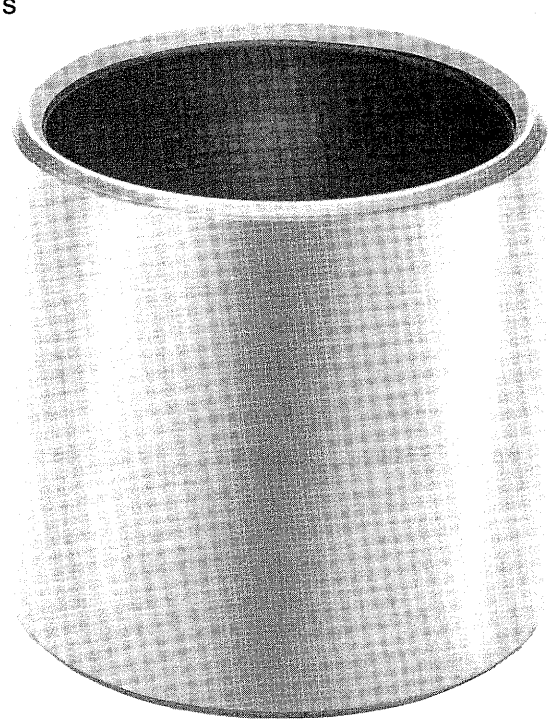
The unique composition of Lubrite HPF bearings makes them well suited to a wide range of applications — from bridges, buildings, pollution control equipment and other special structures to off-road vehicles and heavy duty machinery — wherever high-capacity and high-performance are required.

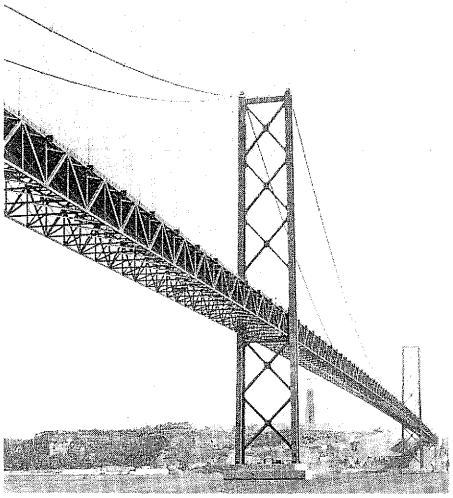
Assemblies

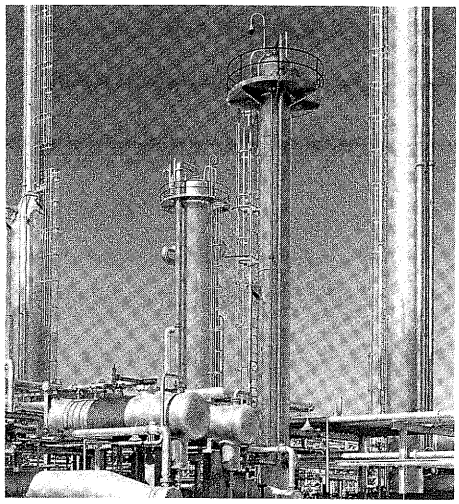
Merriman has the technology, expertise and equipment to build entire bearing systems. Our specialty is the manufacture of assemblies requiring heavy components. This capability provides you with the convenience and economy of producing an entire project under one roof. It also permits comprehensive checks of all sliding and rotational surfaces for compatibility of size and finish to assure you of the highest possible bearing performance.

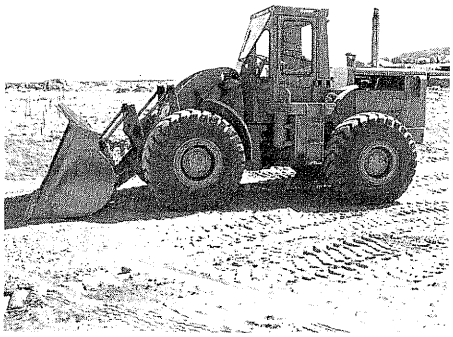
Quality Assurance

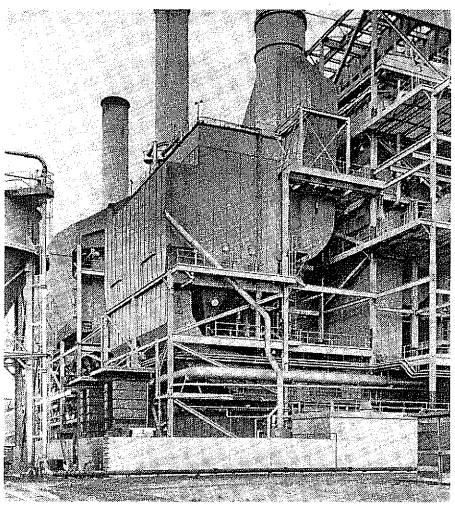
Merriman's quality assurance program specifies and monitors manufacturing standards and regulates the procedural reporting system. A rigorous QC program then verifies dimensional and physical characteristics at every manufacturing interval. Each product is supported with a completely documented quality control history. Merriman's engineers have a wide range of experience in the application of bearing technology. They are also supported by an extensive bearing test facility and our own in-house metallurgical staff. Merriman engineers stand ready to assist you in the design of your bearing and assembly and to monitor the fabrication of all components.

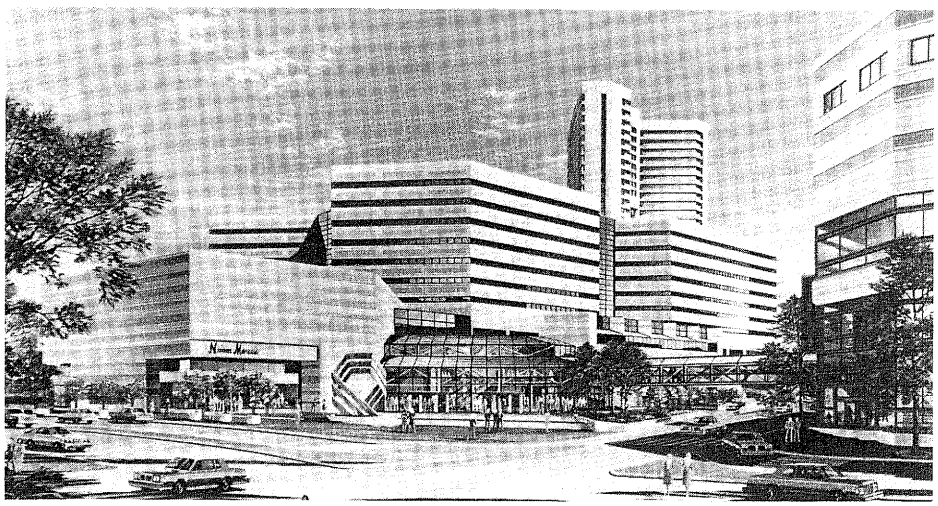












Other Merriman high compression bearings

In addition to Lubrite HPF, Merriman designs and builds high compression bearing systems based on other technologies.

Lubrite

A zero maintenance self-lubricating bearing system utilizing special lubricants incorporated into a metal substrate. For marine, nuclear and structural applications.

Lubrite F

A high-lubricity bearing system utilizing a woven Teflon pad that is mechanically locked to a metal substrate. For applications where a low coefficient of friction (.03) is required and pressures will be 3,500 psi to 6,000 psi.

Lubritemp

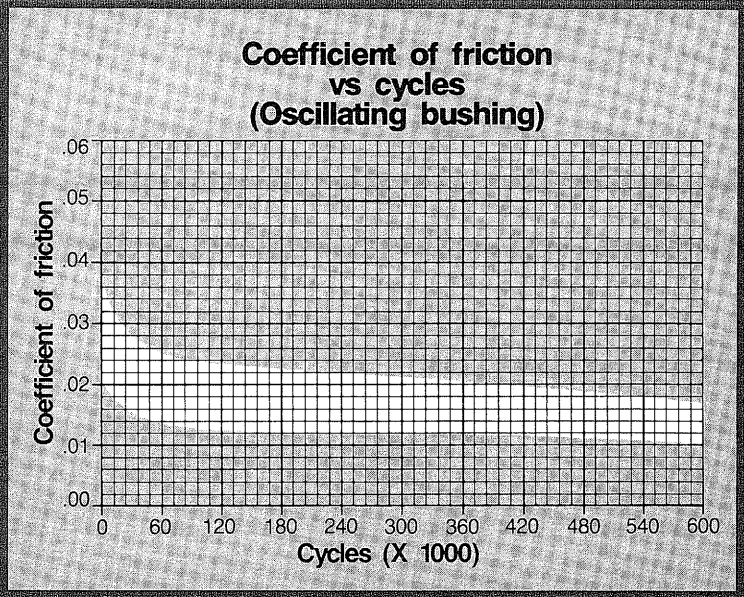
A patented expansion bearing system utilizing a woven-fiber pad and specially formulated lubricants to accommodate high temperatures. Pad is mechanically locked to the metal substrate.

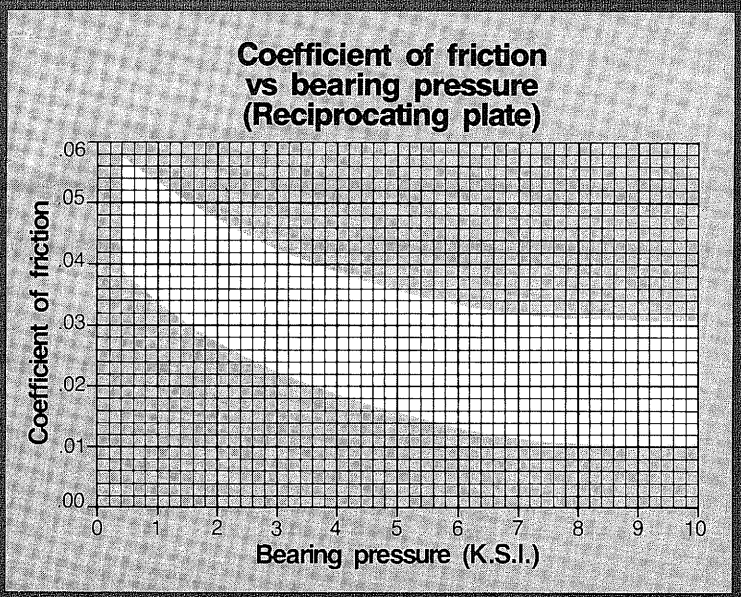
Heavy components

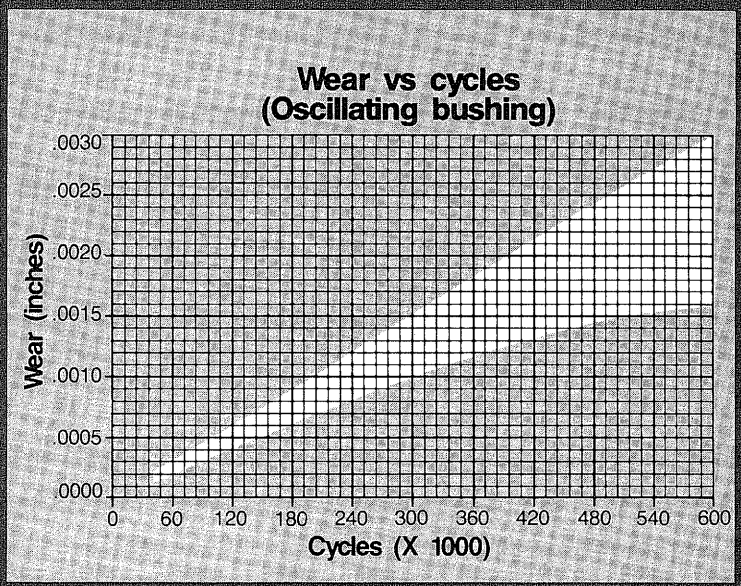
The Merriman Heavy Components Division builds very large and complex structural parts. Assemblies as large as 35 tons have been built in our Hingham plant.

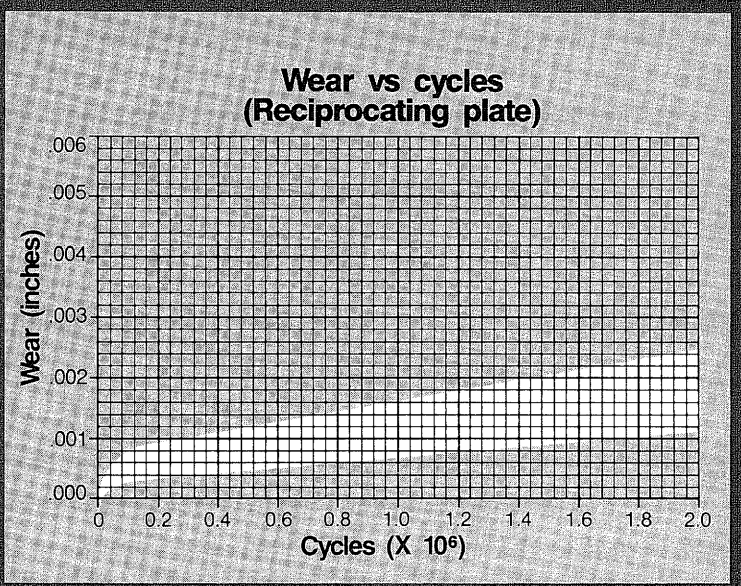
Write to Merriman's design engineers for full information. Merriman, 100 Industrial Park Road, Hingham, MA 02043 (617) 749-5100 Telex 94-0246

LOOK AT THIS PERFORMANCE.









Typical applications include:

Bridges • Pollution control equipment
Cranes • Earthmoving equipment
Hangar bearings • Vessel supports
Pipelines • Buildings