

I Know Exactly When to Stop.

When guesswork is replaced with the "Acoustic Lubrication Method™," bearing failures drop **dramatically**.

Attach the **Ultra-Lube** to your grease gun, and **bearings will tell you when they've had enough grease.**

The Ultra-Lube

- ◊ Safe and simple to use
- ◊ Inexpensive
- ◊ Extremely durable
- ◊ Reveals existing bearing problems
- ◊ Prevents over- and underlubrication
- ◊ Eliminates grease gun calibration

NEW Pro-Reach!

The Pro-Reach provides an excellent way to quickly inspect and diagnose potential problems on bearings, gear boxes, steam traps, etc. Vibration analysts and lubrication technicians can both take advantage of having this important tool. The Pro-Reach can be extended 5 feet for hard-to-reach equipment. Includes a 3-inch steel stinger probe tip.



Personalized In-Plant Training Program

Revitalize your lubrication program, using the newest methods and train in your plant, on your equipment.

800-736-3757
















UVLM, Inc.

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www.uvlm.com

Parts Explanation

Part #	Item Description	Item Explanation	
UVLM97-2	Ultra-Lube Acoustic Lubrication Device (complete kit)	This is the complete kit used for proactive acoustic lubrication and comes complete with David Clark headset w/23dB ambient noise reduction rating, electronics enclosure w/adjustable volume control and Probe Tip Sensor (transducer).	
GP-001A	Probe Tip Sensor (extra transducers)	Purchased in addition to the sensor that comes with the Ultra-Lube kit. Commonly used for situations where different grease types are used.	
DCH-001A	Headset	Headset with 23dB ambient noise reduction rating.	
YC-001A	"Y" Cable (for recording to data collector)	This Y-Cable adapter is used for recording the Ultra-Lube signal into your existing data collector, vibration analyzer or mini disk recorder. The Y-Cable comes with one end with raw wire leads so that adaptation can be made to whichever plug or jack mates	
YC-002B	"Y" Cable (for splicing two headsets together)	This Y-Cable adapter is designed to be used with two headsets. For comparison of sound or equipment, by two individuals, at the same time.	
DEP-001A	Pro-Reach Diagnostic Extension Pole , 4ft extendable (w/out extra sensor)	This item provides an excellent way to quickly inspect and diagnose potential problems on bearings, gear boxes, steam traps, etc. Vibration analysts and Lubrication Technicians can both take advantage of having this important tool. The pole can be extended	
DEP-002B	Pro-Reach Diagnostic Extension Pole , 4ft extendable (with extra sensor)	Same as Part # DEP-001A, but comes with additional Probe Tip Sensor.	

MEP-001A	Mini-Reach Diagnostic Extension Pole, 18 inches (w/out extra sensor)	This item is similar in style as its bigger brother. Designed specifically for Vibration Analysts and Lubrication Technicians, at only 18 inches in length, it also provides an excellent way to quickly inspect and diagnose potential problems on bearings, g	
MEP-002B	Mini-Reach Diagnostic Extension Pole, 18 inches (with extra sensor)	Same as Part # MEP-001A, but comes with additional Probe Tip Sensor.	
PRS-001A	ProReach Stinger	Staninless steel stinger, designed to enhance transmission of sound through Probe Tip Sensor (transducer).	
CC-001A	Comfort Covers, pair (black cloth ear seal protector)	These cloth covers fit over each ear pad on the headset. They help keep dust, dirt and grease out of the inner components of the headset. Also handy for issues of hygiene where more than one person may be using equipment.	
ES-001A	Ear Seals (foam padded), pair	Replacement ear seals/pads, if needed. Designed with soft foam.	
ES-002B	Ear Seals, (gel filled pads), pair	Upgrade from standard ear seals/pads. These are designed with gel filled padding and are extremely comfortable.	

Ultra-Lube Technical Data Sheet

Purpose:

The Ultra-Lube allows Lubrication Technicians to listen to the quality of sound of a bearing while lubricating. The ability to listen to the bearing as lubrication is being injected prevents over and under-lubrication, because the user is able to hear bearing sound change when enough lubrication has entered cavity.

Benefits:

- **Proactively Lubricates** – The Ultra-Lube allows Lubrication Technicians to proactively lubricate bearings using a proven method of lubrication. The ability to determine the exact requirements of a bearing at proper intervals extends bearing life and customizes outdated time/amount based lubrication schedules.
- **Identifies Bad Bearings** – The Ultra-Lube’s sensitivity can detect sounds generated by problems associated with bearing failure.
- **Saves Time** – Lubrication Technician will first listen to a bearing. If lubrication is not needed, then no further time is spent there and on to the next bearing in the lubrication schedule. Also, a Lubrication Technician, upon hearing a possibly damaged bearing, may now report it, saving time for higher echelon maintenance.
- **Safe To Use** - The Ultra-Lube has many safety features, including special connectors that easily disconnect should any part become entangled in rotating equipment. Electronics are sealed in epoxy and enclosed in a NEMA 4 rated, ABS plastic enclosure. All electrical cords are shielded and shrink-wrapped where connections have been made. Headsets have a noise reduction rating of 23 decibels.
- **Simple To Use** – No special training is necessary to operate the Ultra-Lube.
- **Eliminates Grease Gun Calibration** – The Ultra-Lube customizes the grease lubrication requirements of bearings, therefore eliminating the necessity of having every grease gun calibrated for what each pump or “shot” yields. The Ultra-Lube can also hear if grease has reached bearing.
- **Environmentally Conscious** – Because the Ultra-Lube allows you to properly lubricate, the risk of excess lubricant entering ground water or wastewater run-off treatment facilities is greatly reduced. This also saves money on chemicals used to treat wastewater.

Technical Data:

Frequency Range	:20Hz – 20kHz, 4.6kHz median peak
Operating Temperature	:0-45°C (32-113°F)
Output Volume	:adjustable
Headset	:8 Ohm, attenuating NRR – 23dbl
Power Supply	:9V Alkaline industrial battery
Output Power	:.7V (point 7 volts)
Battery Life	:approx. 20-22 hours; on/off indicator light
Electronics Box	:NEMA 4, ABS plastic, hermetically sealed
Dimensions	:9.842 x 6.35 x 3.81 cm (3.875 x 2.5 x 1.5 in)
Weight (Headset)	:360 g (12.5 oz)
Weight (Electronics Box)	:275 g (9.5 oz)
Weight (Probe Tip Sensor)	:190 g (6.5 oz)

Wood Products/Pulp & Paper

Abitibi-Consolidated Inc.
Alabama River Newsprint
Appleton Papers Inc.
Avenor Inc.
Banks Lumber Company
Boise Cascade Paper Solutions
Bowater Inc.
Bright Woods Corp.
Buckeye Florida, L.P.
Cedar River Paper Co.
Champion International
Consolidated Papers, Inc.
Domtar Inc.
Englehard Corporation
Finley Forest Products
Fletcher Challenge Canada, Ltd.
Fort James Corp.
Georgia Pacific Corp.
Graphic Packaging
Grays Harbor Paper
Green Bay Packaging
Hollingsworth & Vose
Inland Paperboard & Packaging
International Paper
Irving Tissue Co.
Jefferson Smurfit
Kimberly-Clark Corp.
Lake Superior Paper Industries
Langboard Inc.
Little Rapids Co.
Longlac Wood Industries
Longview Fibre Co.
MacMillan Bloedel Limited
Manke Lumber Co.
Mead Specialty Papers
Monadnock Paper Mills
Newark Sierra Paperboard Corp.
Newsprint South
NorskeCanada
Packaging Corporation of America
Pacific Veneer, Ltd.
Plum Creek Mfg.
Pope & Talbot Ltd.
Port Townsend Paper
Potlatch Forest Industries
Proctor & Gamble Co.
Rainy River Forest Products
Rand Whitney Containerboard
Rayonier Performance Fibers
REX Lumber Co.
Riverwood International
Sierra Pine Ltd.
Sorporcel (Portugal)
Stag Timber
St. Marys Paper Ltd.
Stone Container Corp.
Taiwan Scott Paper
Tembec, Inc.
Temple Inland Inc.
Tenneco Packaging
Union Camp Corp.
Wausau Paper
Welco Lumber Co.
Weyerhaeuser Co.
Yuen Foong Yu Paper Mfg Co

Utilities/Power Generation

Allegheny Energy
Al Taweelah Power Co, United Arab Emirates
AmerGen Energy Company, LLC
American National Power
ATCO Power Canada Ltd.
Arizona Power Services
Calpine/Androscooggin Energy LLC
City of Peoria Arizona
Cleveland Electric Illuminating Co.
Columbia Improvement District
Commonwealth Edison
County of Jackson Resource Recovery
Dairyland Power Cooperative
Desert Water Agency
Detroit Edison
Dominion Generation
Energy NW, Colombia Generating Stn
Entergy Corp.
Exelon
Florida Power Corp.
Georgia Power
Greater Vancouver Reg. Dist. - WWTP
InterGen
Kansas City Power & Light Co.
Kewaunee Nuclear Power Plant
LaPaloma Generating Company
Las Vegas Valley Water District
LG&E Energy Corporation
Logan Generating Company
Los Alamos National Laboratories
Magnolia Energy
Mid Georgia CoGen
Midlothian Energy L.P.
Northern States Power Co.
Northampton Generating Co.
Onondaga County Water Dept.
Ontario Power Generation
Pacific Corp.
Pacific Gas & Electric
PGE Coyote Springs
Point Beach Nuclear Power Co.
Portland General Electric
Prairie Island Nuclear
Progress Energy
Puente Hills Perg Facility
Rathdrum Operating Services Co.
Salt River Project – Santan Gntng Stn
Seattle Public Utilities
Selkirk CoGen
South Carolina Electric & Gas
Southern California Edison
Southern Nuclear Operating Company
Suncor Energy.
Thunder Basin Coal
U.S. Generating Co.
Tenaska Alabama Partners LP
Tennessee Valley Authority
Texas Utilities Electric
Texas Industrial LP
Tractebel Electricity & Gas International
Trigen Energy Corporation
Vectren Culley Generating Station
Virginia Power Co.
Westcoast Energy Inc.
Weststar Energy
Xcel Energy

Chemicals/Petrochemicals

Air Liquide America
Air Liquide Canada
ALCOA Inc.
Aristech Chemical Co.
Ashta Chemicals Inc.
BASF Corporation
Big West Oil & Gas Inc.
Borden Chemicals
BP Canada Chemical Co.
BP Offshore
Calgon Carbon Corp.
Cargill Crop Nutrition
Chevron Phillips Chemical
Citgo Petroleum Corporation
ConocoPhillips Alaska, Inc.
Dixie Chemical Company Inc.
Dow Chemical Co.
East Texas Salt Water Disposal
E.I. DuPont de Nemours & Co.
Engelhard
Ergon Refining
ESSO Australia Ltd.
Formosa Petrochemical Corp.
GAF Corporation
Graymont Western US, Inc.
Great Lakes Chemical
Henkle Corp.
Hung Chou Chemical Ind. Co. Ltd.
Hyundai Petro Chemicals, S. Korea
IMC-Agrico Co.
IMC Chemicals Corp.
IMC Potash Colonsay
IMC Phosphates
Kerr-McGee Chemical LLC
LaRoche Industries
LG-Caltex Oil Refinery Co, S. Korea
Mosaic Phosphates Company
Monsanto Co.
Morton International
Nat'l Petrochemical Company, Thailand
Nova Chemicals
Occidental Petroleum Corp, Ecuador
Penn Specialty Chemicals
Pioneer Natural Resources
Qatar Petroleum
Reilly Industries, Inc.
Saudi Aramco, Ju'aymah Gas Plant
Saehan Co, S. Korea
Searles Valley Minerals
SF Phosphates Limited Co.
Shell Chemical
Shintech Co.
Solutia, Inc.
Solvay Advanced Polymers
Sumitomo Sitix Silicon, Inc.
Suncor Firebag Operations
Syngenta Crop Protection, Inc.
Thiele Kaolin Co.
Tosco Corp.
Union Carbide Corp.
Uno-Ven Refinery
Vulcan Chemicals

Governmental/Defense Contractors

Boeing Defense & Space Group
The Dalles Dam
Hill Air Force Base
Johnson Controls
NASA
Naval Air Warfare Center
U.S. Army Corp. of Engineers

Manufacturing/OEM

AET Packaging Films
 AlliedSignal Inc.
 Anderson Corp.
 Arcadia Corp.
 Armstrong World Industries, Inc.
 Avery Dennison
 B&M Plastics
 Beloit Corp.
 Boeing Commercial
 Brush Wellman, Inc.
 CertainTeed Corp.
 Clopay Corporation
 Cummins Engine Co., Inc.
 Cyril Scott Corp.
 DAF Trucks, The Netherlands
 Delphi Corporation
 Doorcraft of Indiana
 Dunlop Slazenger LLC
 E.I. DuPont de Nemours & Co.
 FiberVisions Products Inc.
 Firestone/Bridgestone Corp.
 FNA Polymer Corp.
 Formosa Plastics Corporation
 Fujitsu Microelectronics, Inc.
 GAF Materials Corporation
 General Electric Co.
 General Mills Inc.
 General Motors Corp.
 General Motors Powertrain
 Guardian Industries Corp.
 Honeywell International Inc.
 Huhtamaki Food Service/Chinet
 IBM Corporation
 Northrop Grumman
 Intel Corporation
 Mikron Industries
 National Oilwell
 New England Woodenware
 Osram Sylvania
 Owens Corning
 Pace Co.
 Peterbilt Motors Company
 Phillip Morris USA
 PMC Industries
 Procter & Gamble
 QTG Canada
 Safety-Kleen Corp.
 Saint-Gobain
 Saudi Cable Co.
 SC Johnson & Son, Inc.
 Subaru - Isuzu Automotive Inc.
 Taiwan Semiconductor Mfg Co. Ltd.
 Tate & Lyle Sucralose
 Timken Co.
 Toray Plastics
 Thiele Kaolin Co.
 US Intec Inc.
 Velcro USA, Inc.
 Wellman Inc.
 Whirlpool Corporation
 Wilsonart

Mining/Aggregates

Albian Sands Energy Inc.
 Ash Grove Cement
 Barrick Goldstrike Mines
 Carmeuse Lime & Stone Inc.
 Cemex Inc.
 Continental Cement Company
 Eastern Associated Coal
 Graniterock
 Graymont Western US
 Holcim (US) Inc.
 IMC Phosphates Co.
 Lee Ranch Coal Co.
 LeHigh Cement Co.
 Minera Los Pelambres, Chile
 NYCO Minerals
 OCI Wyoming
 Phoenix Cement
 St. Mary's Cement Inc.
 Texas Industries, Inc.
 U.S. Borax
 U.S. Silica Co.
 Youngquist Brothers

Food/Agriculture

ADM Corn Sweeteners
 A.E. Staley Manufacturing Co.
 Amalgamated Sugar Company
 American Crystal Sugar Co.
 Archer Daniels Midland Co.
 Basic American Foods
 ConAgra-Lamb Weston Foods
 Caprock Industries
 Cargill B.V., The Netherlands
 Cargill Incorporated
 Consolidated Grain & Barge, Co.
 Coors Brewing Company
 Darigold
 Excel Corporation
 Fisher Mills, Inc.
 Golden Foods/Golden Brands
 Monsanto Company
 National Frozen Foods
 Pace Co.
 Purina-Ralston Foods Corp.
 Seneca Foods
 Southern Minnesota Beet Sugar
 State Fair Foods
 Symons Frozen Foods
 Tropicana
 Welch's
 Western Empires Inc.
 WestFarm Foods

Metals/Metal Forming

Alcan Primary Metal BC
 Algoma Steel Inc.
 AK Steel
 Harrison Steel Castings
 King Extrusions Ltd.
 Korea Zinc Co, S. Korea
 National Steel
 Nichols Aluminum
 Nucor Yamato Steel Company
 Oregon Steel Mills
 Reynolds Metals Co.
 Teck Cominco Metals Ltd
 U.S. Steel

Pharmaceuticals/Labs

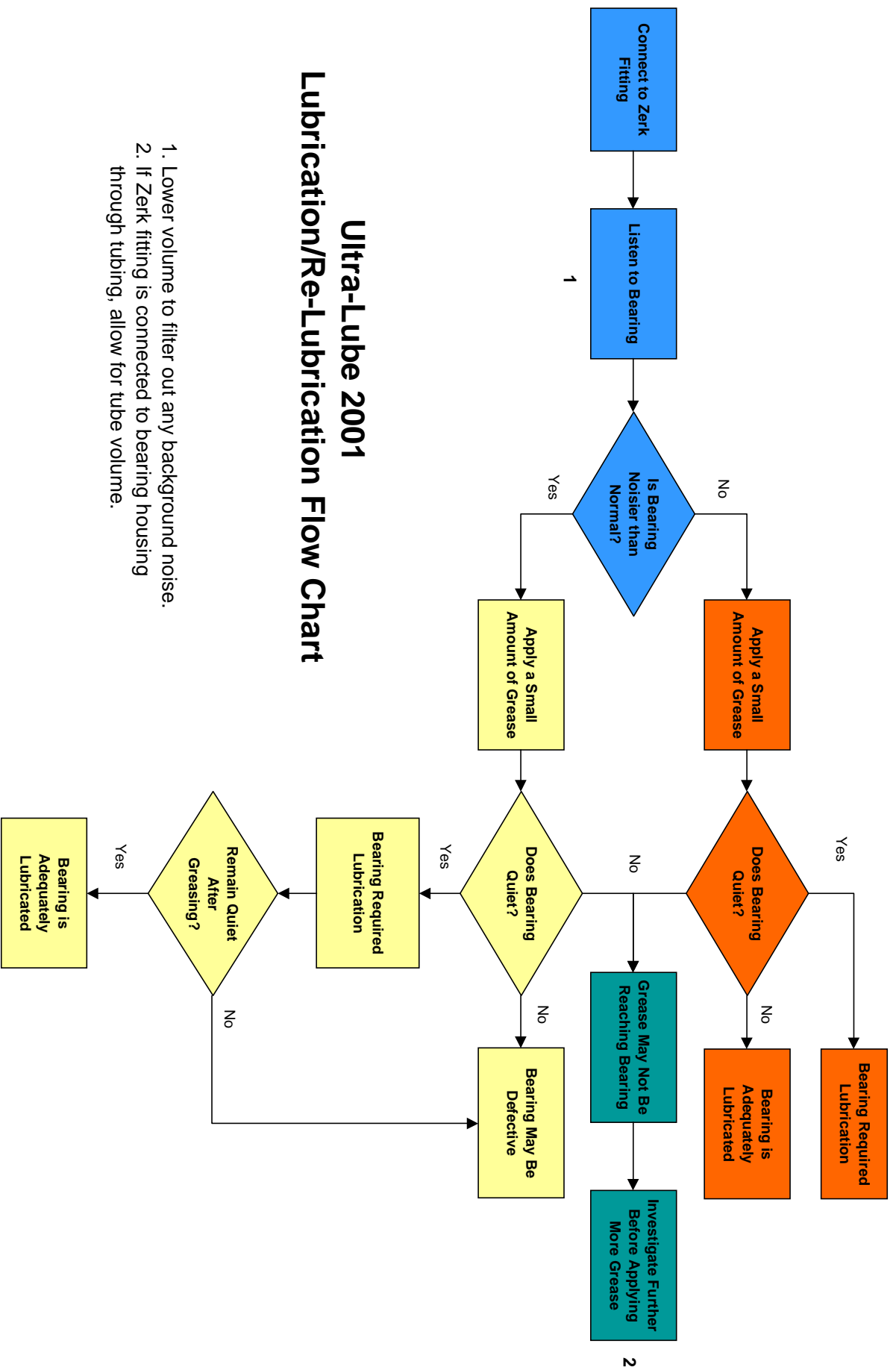
Abbott Laboratories
 Amgen Inc.
 Becton, Dickinson & Company
 Eli Lilly & Company
 Fermi National Laboratories
 FMC Corp.
 Genencor International Wisconsin Inc
 Genzyme Transgenics Corp.
 Immunex
 Los Alamos National Laboratories
 Merck & Company Inc
 Novo Nordisk BioChem, Inc.
 Pfizer Pharmaceutical LLC
 Pharmacia/Searle Ltd.
 Roche Carolina

Hospitals/Institutions

Big Bend Community College
 Cleveland Clinic Foundation
 Ozarks Technical Community College
 St. Vincent Hospital
 University of Texas
 University of Washington

Service/Engineering

2R Systems Inc.
 Aera Energy, LLC
 Argosy Enterprises, Pakistan
 Associated Products, LLC
 Bearing & Oil Seal Specialists
 Betko Peru, Peru
 Brunette Equipment
 Burns & Roe Services Corp.
 CB Richard Ellis
 Centre de Services Aux Entreprises
 Chemserve Systems, South Africa
 C.I. Sealco S.A., Medellin, Colombia
 Export Oilfield Services
 Federal Express
 Federal Reserve Bank
 Global E-Technic, Malaysia
 Hagemeyer Worldwide
 Hawera Rewind (New Zealand)
 Ind. Lubrication & Maint. Co.
 Ingelube S.A., Chile
 Invenma, Venezuela
 KICer Technology Ltd, Taiwan
 Maintech Corp.
 Maintenance Systems Consolidated Pty
 Mobil Lubrication Services
 Overall Laundry
 Peel Resource Recovery, Canada
 Raymonds Supply Co. Ltd., Hong Kong
 Reliability Equipment Specialists
 Schematic Approach Inc, Canada
 Services Industriels HPL, Canada
 Sicelub, Mexico
 Solge Corp, South Korea
 Solinas Benelux BV, The Netherlands
 T&V Services
 Tecviusa, Mexico
 Tricom Services
 VibeAssist Inc.
 Vitech Asia-Pacific Pty. Ltd, Australia



Ultra-Lube 2001 Lubrication/Re-Lubrication Flow Chart

1. Lower volume to filter out any background noise.
2. If Zerik fitting is connected to bearing housing through tubing, allow for tube volume.

Ultra-Lube Testimonials and Comments

Gary Latham, Algoma Steel Inc.

The Ultra-Lube 2001 is allowing us to, very simply and at a low cost, revolutionize the way we grease our equipment. It inspires us to step back and think about the effect of greasing and how we should change our antiquated methods handed down over generations that were wrong.

The use of this unit should be the first basic step any company must make toward proactive maintenance as it is extremely cost effective.

Already, in a very short time, the Ultra-Lube has enabled us to make some major breakthroughs in thinking on fan bearings. We also saved a 3000HP induction fan motor, which saved the company an estimated \$3,000,000. We are destined to save the company many more millions of dollars in maintenance costs and heightened operating time.

Thank you UVLM for a truly awesome product that has great proactive potential.

Robin Gray, Lubrication Technician, Tenneco Packaging Co.

I've used a number of electronic stethoscopes over my 24 years of oiling machinery at this mill. The first and most obvious benefit to me was the clear sound transfer from equipment to the ears. My being able to monitor the internal sound was invaluable. That capability allowed me to convey important information to the right people.

In oiling, greasing intervals and the amount vary on different pieces of machinery. The Ultra-Lube helped me to establish a time frame to re-lubricate. It's saved some catastrophic failures over the years. By using it on a daily basis, my listening skills increased. I got to know what is normal and what is not on the equipment's internal operation. You develop skills to differentiate a bad raceway, an imbalance issue, a worn rolling element or a bad coupling. Many situations occurred over the years. Vibration people at our facility would gather data to determine a failure. There were times where human ears proved better. I would state, I hear what you see. I'm not saying vibration isn't valuable, but the Ultra-Lube has its place right along side the vibration program.

Over the years I've put the Ultra-Lube to the test. My job duties were in all environments. From a hot, wet end of a paper machine to a cold environment when lubricating exhaust fans on a roof in the middle of winter. In the heat of the dryer sections temps probably average 140 degrees to 150 degrees ambient. The tool took this punishment. The cord of the headset and other internals still functioned. The headset still provided a good seal from external noise coming from other equipment. The transducer continues to still perform well after all these years of abuse. From the first generation to this improved version the Ultra-Lube is relentless and rugged. I can't emphasize enough that it's a quality tool.

Judson Patterson, Vibration Analyst, U.S. Alliance

After our plant purchased the Ultra-Lubes for our Lubrication Technicians, I was interested to see how it would work for the Vibration Analyst group. I never gave it back. I use it for all my interim vibration inspections to check conditions. I use it to check up on my Vibration Analysis equipment and confirm what it is saying is going on in the machinery. It also helps my time wave analysis. I have found numerous cracked and damaged bearings with it and it helps on motor analysis. I'd say it has helped my job 30% or better.



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Ultra-Lube Personalized Hands-On Training Schedule

2 persons in attendance, per session. A session is commonly ½ day. A total of 4 persons may be trained in one scheduled day or 2 persons each half day.

Each Session

15-30min. – Classroom

Introduction to the Ultra-Lube Sonic Lubrication Device and familiarization (if applicable). Assembly and care of the Ultra-Lube tool. Instruction in initial use of Ultra-Lube and purpose. Troubleshooting tips and in field repair.

1-2 hours (as needed) – In Field Practicum.

Begin to listen with the Ultra-Lube, making notations of various bearing sounds. Each attendee will take their own notes (ie: which bearings they would grease or report, etc.) and make numeric values based on a 1-10 scale method about condition of each bearing listened to.

1-2 hours (as needed) – In Field Practicum

Return to bearing route and listen again. Instruction in determining which bearings need lubrication and which bearings do not and the reasons why. Begin proper and proactive lubrication of bearings that need further attention. Instructor will also alert class to any bearings that might have been missed as well. Class will be instructed on how to begin to implement an effective, trendable lubrication routine and make necessary changes or modifications to an existing one. Class will be instructed on techniques to use while lubricating bearings and things in plant to be on the lookout for during a lubrication routine. This includes instruction on ways to quickly check gearboxes, valves, steam traps, etc. while getting to and from point to point. Attendees will also be shown advantages of implementing lubrication practices that align with vibration groups and other condition based monitoring groups.

A full report of any instructor findings on equipment in plant during training will be provided and “Certificates of Completion” may also be obtained by request.

Due to the nature of this personalized training, more than 2 people per training session is prohibitive. Two people per training session are optimum. Depending upon the structure of the maintenance process used in plant (ie: engineers, mechanics, operators, lubrication technicians, etc and depending upon which individuals grease which equipment) it may not be necessary to have every potential Ultra-Lube user attend a session. However, each group should have two or three key people trained and each group should have a separate training session scheduled, customized for the machinery under their control.

Cost per person, minimum 1 day (2 Sessions): \$650 per person, plus \$1000 expenses fee.

Training performed by: Doug Gribble, UVLM, Inc.

Doug Gribble has over 35 years industrial preventive and predictable maintenance experience and was certified by OSHA/WISHA as a Safety Inspector, Dept. of Labor & Industries.

