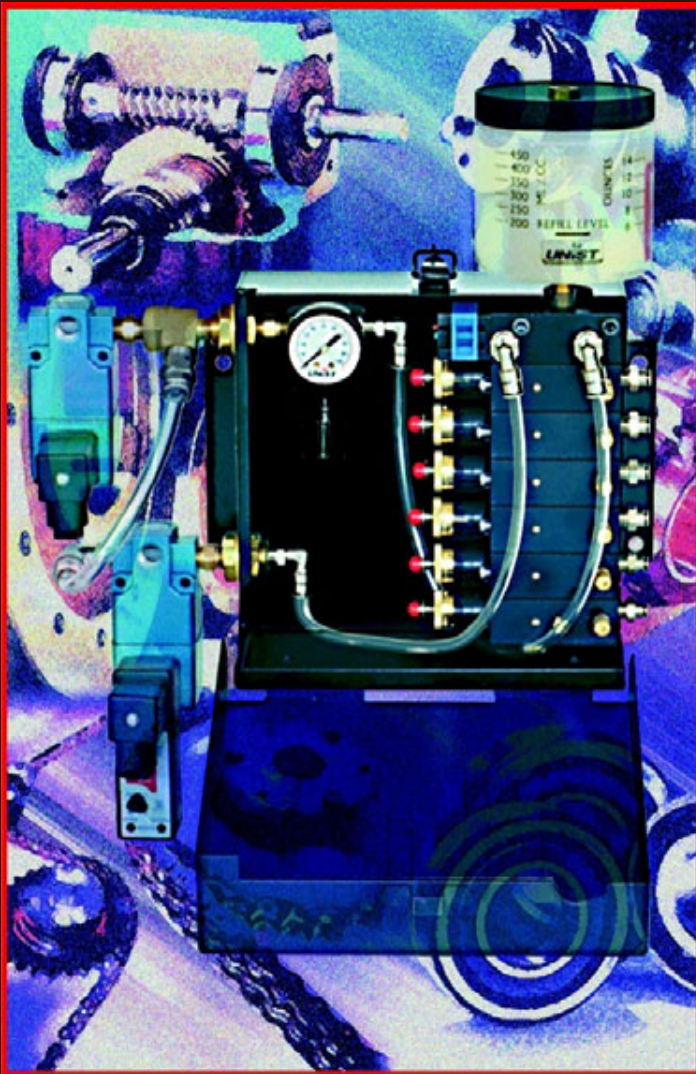


# PRECISE FLUID DISPENSING PRODUCTS



## **air** Oil wearpoint lubrication systems



CONTROLLED  
AIR/OIL DELIVERY SYSTEMS  
FOR:

**BEARINGS**

•

**BALL SCREWS**

•

**CHAINS**

•

**RAILS**

•

**GEARS**

•

**WIPES**

•

**WHEEL  
FLANGES**

•

**AIR MOTORS**

•

**CUTTING  
TOOLS**

•

**AIR CYLINDERS**

•

**WELDING  
ELECTRODES**

•

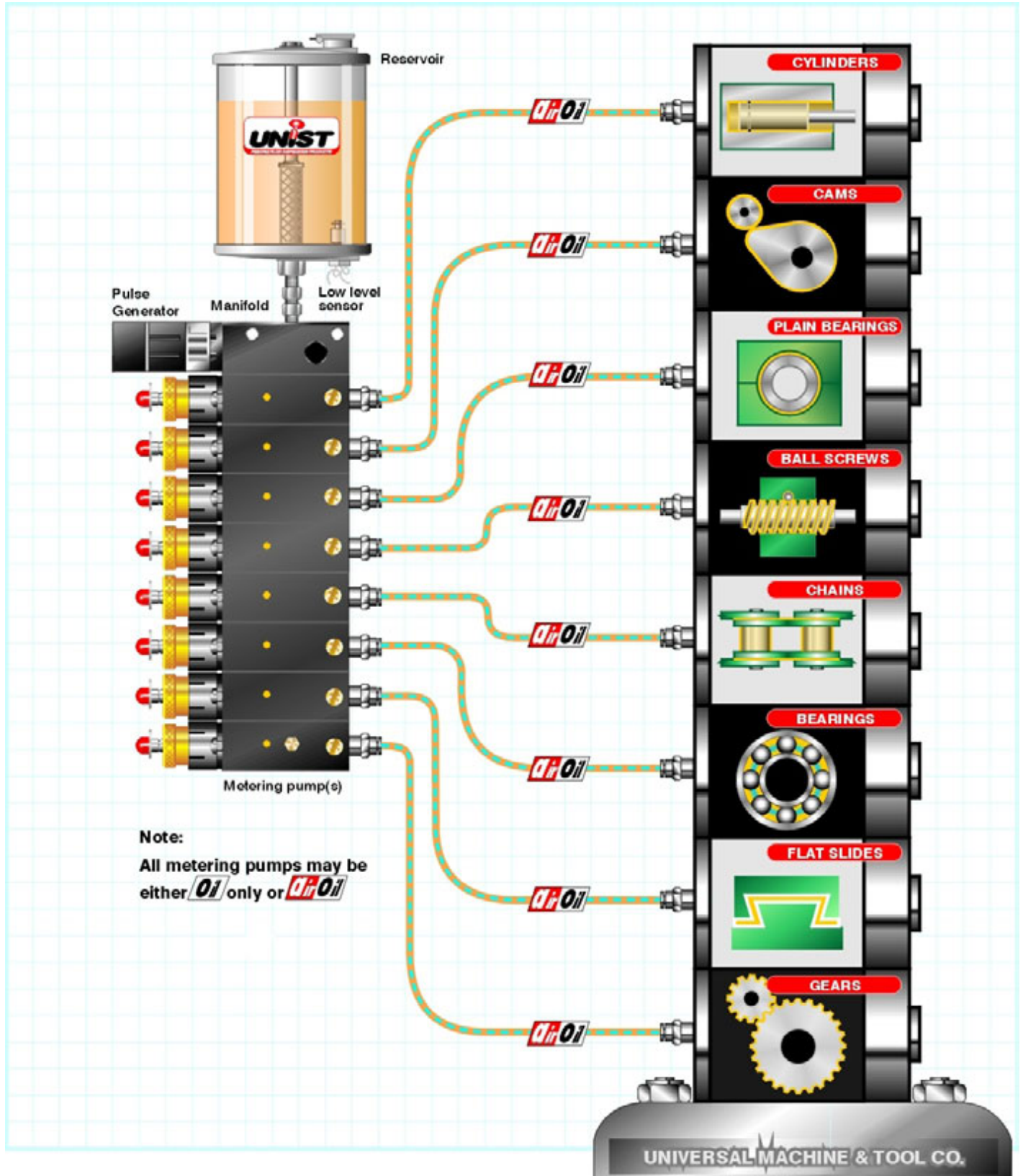
**JOURNAL BEARINGS**

*"a better idea" from*





# TYPICAL APPLICATIONS



Note:  
All metering pumps may be either **Oil** only or **Oil**



**BASIC SINGLE LINE SYSTEM**

**SYSTEM OPERATION**

- ENERGIZING BOTH SOLENOID VALVES TURNS THE SYSTEM ON.
- AIR FLOWS IN METERED AMOUNTS TO ALL OUTPUT POINTS. PERIODICALLY, METERED OIL IS PUMPED INTO THE AIR OUTPUT LINE AND FLOWS TO LUBRICATION POINTS. THE SYSTEM WILL OPERATE AUTOMATICALLY AS LONG AS BOTH SOLENOID VALVES ARE ENERGIZED.

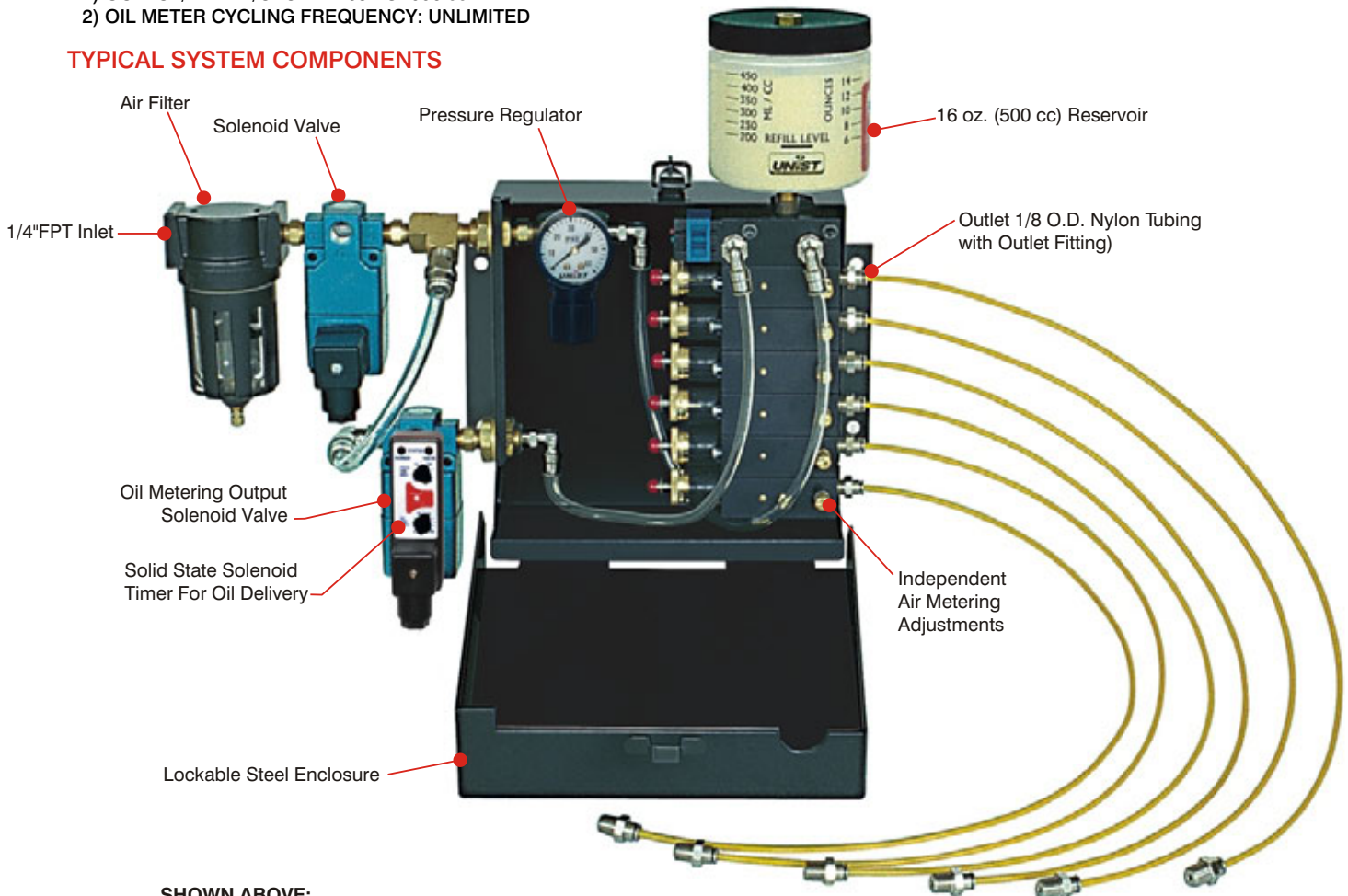
**ADJUSTMENTS**

- AIR:
  - 1) SYSTEM INLET PRESSURE TO 120psi.
  - 2) AIR PRESSURE ADJUSTMENT TO EACH LUBE POINT 0-100 psi.
- OIL:
  - 1) OUTPUT/METER/CYCLE= .03 TO .006 cc
  - 2) OIL METER CYCLING FREQUENCY: UNLIMITED

**SYSTEM SPECIFICATIONS**

- OIL OUTPUT: 0 TO .35 cc/min PER OUTLET
- OIL PRESSURE: TO 1000 psi. (65 BARS)
- RESERVOIR CAPACITY: (See next page for optional sizes)
- OPERATING VISCOSITY: TO 300,000 S.U.S
- AMBIENT TEMPERATURE: 0 - 50 deg. CELSIUS
- POWER : 10w MAX
- VOLTAGE: 24-240 VAC. 50/60 CYC. 12-24 VDC.
- ENCLOSURE: LOCKABLE STEEL-SEAM WELDED
- LOW-LEVEL FLUID SWITCH - OPTIONAL

**TYPICAL SYSTEM COMPONENTS**



**SHOWN ABOVE:**  
6 point single line system, commonly used for bearings, cams, gears etc. Lubricant usage: .006 cc/hr - 200 cc/hr per outlet

**Inadequate or improper lubrication** causes approximately 50 percent of bearing failures and 60 percent of mechanical failures.

**The costs to repair damage** caused by mechanical wear clearly can take an unnecessary toll on your maintenance and repair budget.

**Our engineers can design a system** to automatically lubricate hundreds of wearpoints so that each wearpoint receives the appropriate amount of lubricant at the appropriate time, with none being missed or over lubricated, wasting manpower and lubricant.

**Selecting the right lubrication system** UNIST offers nearly unlimited wearpoint lubrication systems configured with one or more metering pumps with optional pulse generator, tanks or reservoirs, supplying both air and oil or oil only to one or more wearpoints.



**Accessories / Options / Tanks / Reservoirs**

**OPTIONS & FEATURES**



Solenoid Valve Options  
 • 24-240 VAC  
 • 12-24 VDC

Solid State Solenoid Timer  
 • Provides periodic signal to operate Oil Metering Pumps

Day/Date Timer  
 • 7 Day/24 Hour timers available  
 Consult factory

Air Filter - 1/4" NPT for water and particulate removal

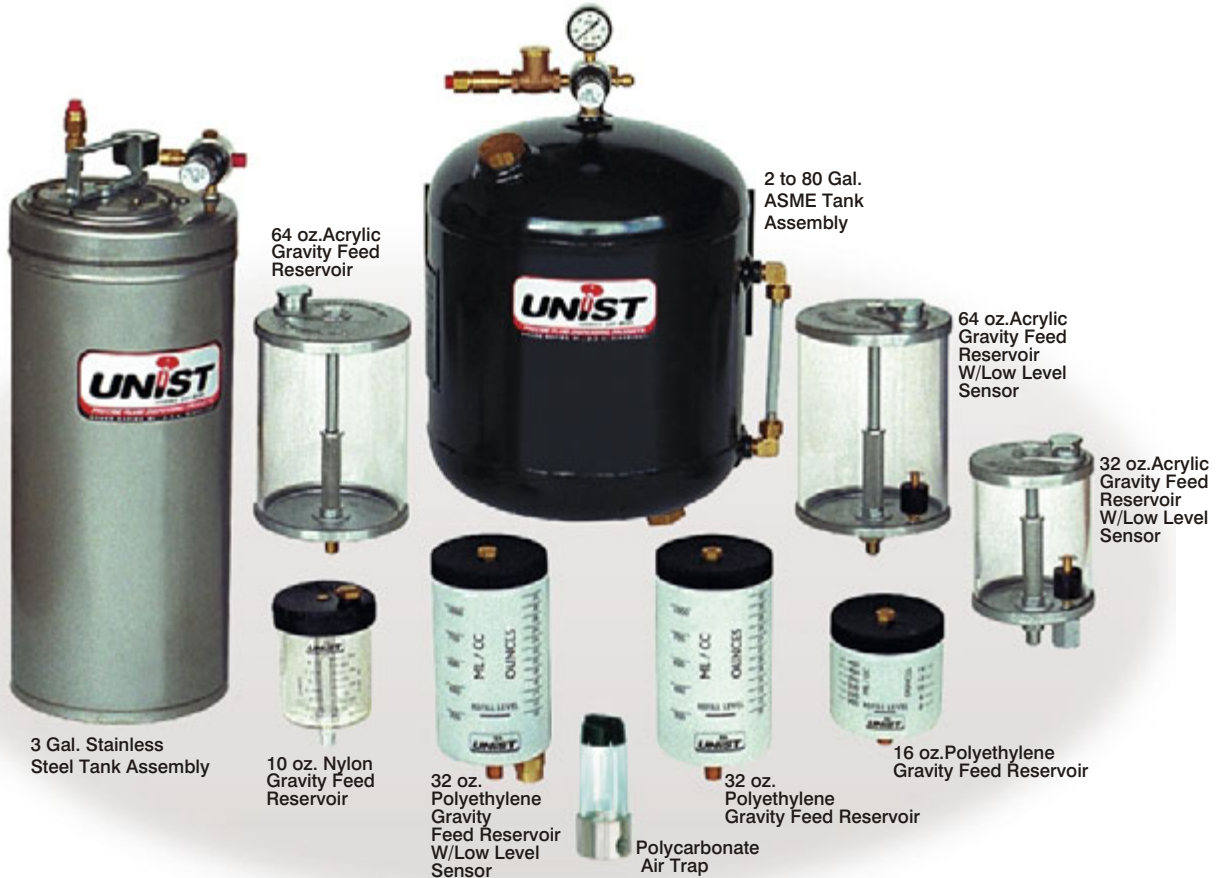
Pressure Regulator for adjustment of air pressure to lubrication points

**OUTLET FITTINGS**



Push to Connect or Compression Fitting per custom specifications for Nylon or Copper lines

**TANKS & RESERVOIRS**



3 Gal. Stainless Steel Tank Assembly

64 oz. Acrylic Gravity Feed Reservoir

10 oz. Nylon Gravity Feed Reservoir

32 oz. Polyethylene Gravity Feed Reservoir W/Low Level Sensor

Polycarbonate Air Trap

2 to 80 Gal. ASME Tank Assembly

64 oz. Acrylic Gravity Feed Reservoir W/Low Level Sensor

32 oz. Acrylic Gravity Feed Reservoir W/Low Level Sensor

16 oz. Polyethylene Gravity Feed Reservoir

32 oz. Polyethylene Gravity Feed Reservoir

# **airOil** Application Questionnaire

**Company Information:**

Name \_\_\_\_\_ Date \_\_\_\_\_

Company Name \_\_\_\_\_ Phone \_\_\_\_\_

Address \_\_\_\_\_ Fax \_\_\_\_\_

\_\_\_\_\_ e-mail \_\_\_\_\_

\_\_\_\_\_ Business Type: End User \_\_\_ OEM \_\_\_\_\_

\_\_\_\_\_ End Product \_\_\_\_\_

**Application Information:**

Product Wearpoint To Be Lubricated: \_\_\_\_\_

Current Method Of Lubrication: \_\_\_\_\_  None

Current Application Method: \_\_\_\_\_  Not Known

Approximate Distance from Control Unit to Lubrication Points: \_\_\_\_\_  UNIST To Recommend

Preferred Actuation Method:  Electric ( \_\_\_\_\_ Volts/AC or DC)  Pneumatic  Manual  Other \_\_\_\_\_

Desired Lubricant: \_\_\_\_\_ Dispersing Rate: \_\_\_\_\_

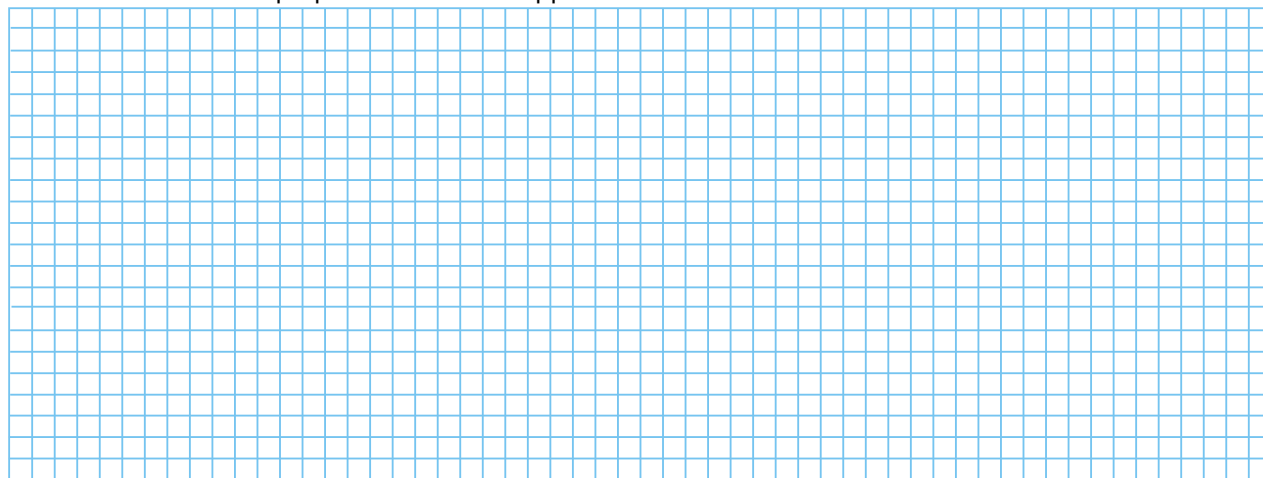
Operating Environment (Temperature Extremes, etc.) \_\_\_\_\_

Comments: \_\_\_\_\_

\_\_\_\_\_

**Application Sketch:**

Provide a sketch of the proposed lubrication application.



UNIST, Inc. 4134 36th Street, S.E. Grand Rapids, Michigan USA 49512  
 Your **Micro-Fluidization** Specialist!

# Additional Micro-Fluidization Products from UNIST

**Coolube 2210 will yield the lowest net manufacturing cost of any fluid**



**Coolube 2210** is a premium quality vegetable based metalcutting lubricant. It is formulated to work with ferrous and non-ferrous metals.

**Coolube 2210** is ideally applied with Uni-MAX precise fluid applicators. **Coolube 2210** is a polar lubricant and is most effective when applied sparingly. If it is applied correctly and the proper amounts are dispensed, **Coolube 2210** will yield the lowest net manufacturing cost of any fluid. Cost saving will be realized through longer tool life, increased productivity, lower shop maintenance cost, clean chips, clean parts and clean machines.



## CUTTING TOOL LUBRICATION Micro-Fluidization Products

### uni-MAX Coolubricator

- Air-driven, positive displacement pumps supply precisely metered liquids
- Continuous output: 1-200 cycles/minute with .2 to drops per cycle
- Continuous spray
- For metal cutting, machining & stamping
- For plastic or wood machining and cutting
- For in die lubrication
- For chain lubrication



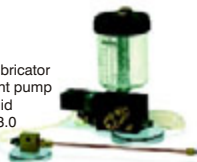
### uni-MAX Serv-O-Spray

- Intermittent: Manual to 200 cycles/minute
- Precise metering of liquids - .2 to 3.0 drops per injection cycle
- Individually controlled meters (1-50)
- Special seals for exotic fluids
- For supplemental and spot lubrication
- For in-die lubrication



### uni-MAX Single Line Systems

- Lower cost alternative to Coolubricator
- Air-driven, positive displacement pump supplies precisely metered liquid
- 1-200 cycles/minute with .2 to 3.0 drops per cycle
- Continuous spray
- For metal cutting, machining and stamping
- For plastic or wood machining and cutting
- For in-die lubrication
- For chain lubrication



## SAW BLADE LUBRICATION Uni-MAX W/BAT NOZZLE

### NEW Uni-MAX 3 outlet "BAT" Nozzle

Covers the face and both sides of the saw teeth simultaneously.



Continuous and precise lubricant is delivered to the bat nozzle by a Uni-MAX Coolubricator for a low cost delivery system.

Outfit or Retrofit your saws with the latest lubrication technology - designed to increase blade life, reduce fluid consumption, produce dry, easily recycled chips, and maximize sawing productivity.

## Tuff-Thane Polyurethane Hose Assemblies and the Full-Flo Fitting System

Tuff-Thane hoses provide significant advantages over nylon, PVC and rubber hoses for air tools, blow guns, etc. Made of polyurethane, our Tuff-Thane hoses are almost indestructible. When combined with our patented Full-Flo Fittings, Tuff-Thane hoses provide an unrestricted flow of air. This permits the use of smaller size hoses reducing weight and cost while improving flexibility and air tool operation.

Together, Tuff-Thane hoses and Full-Flo Fittings provide features not found in any other hose assemblies:

- Excellent recoil memory
- Smaller coil size
- Reduced hose weight
- Consistent, smooth inside fitting and hose diameter.
- Elimination of compression fittings, ferrules, inserts, spring guards and whip hose extensions.
- Non-Marketing of painted surfaces

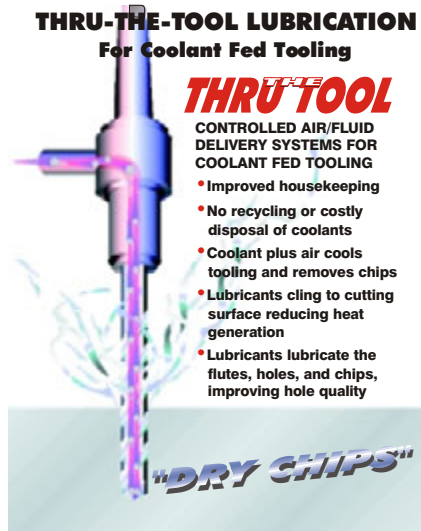


## THRU-THE-TOOL LUBRICATION For Coolant Fed Tooling

### THRU TOOL

CONTROLLED AIR/FLUID DELIVERY SYSTEMS FOR COOLANT FED TOOLING

- Improved housekeeping
- No recycling or costly disposal of coolants
- Coolant plus air cools tooling and removes chips
- Lubricants cling to cutting surface reducing heat generation
- Lubricants lubricate the flutes, holes, and chips, improving hole quality



## FLAT STOCK LUBRICATION Precise Push Button Control

### SPR-2000 PROGRAMMABLE LUBRICATION STATION

can control lubricant at up to 22 LUBE POINTS. These points can be Internally Fed Rollers on UNIST uni-ROLLER stock lubrication systems, External Spray Nozzles, or In-The Die lube points. The system can save up to 60 different programs and can also monitor critical functions such as FLUID LEVEL, PRESSURE, and FLOW.

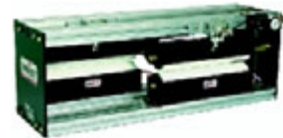
### "Take Total Control" SPROLLit

Use the SPR-2000 SPROLLit with our UNIST uni-ROLLER to coat stock in metal forming operations or with spray nozzles for a multitude of other applications.



## FLAT STOCK LUBRICATION Coil & Blank Stock Coating

### uni-Roller



### Applications

- Punching
- Stamping
- Fine Blanking
- Deep Drawing
- Roll Forming
- Cold Extrusion
- Application of Rust Preventatives and Other Protective Coatings

### Benefits

- 75-90% Reduction in fluid consumption
- Coates any stock width or thickness
- Lubricates one or both sides of coil or blanks
- Stock powered or motorized
- No Fluid Recycling
- Cleaner Work Areas

LOCAL REPRESENTATIVE

e-mail:unimail@unist.com • http://www.unist.com

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