



Can Making Lubrication Systems

Proven Precision & Performance



Unist Quality Systems Since 1957!



Unist, Inc. is a recognized leader in the design and manufacture of precision fluid application systems for the metal cutting and metal forming markets. Since 1957, Unist has been providing innovative solutions to our customers that save money in their manufacturing processes by reducing the amount of fluids consumed through repeatable, reliable application. The consistent application of minimum quantities of fluids reduces waste, saves money, improves process efficiency, and is friendly to the global environment.

Since 1993, Unist has offered precision lubrication application systems for the metal forming industry. Unist's Uni-Roller® systems feature a unique internally-fed roller design and provide an environmentally friendly solution for applying lubricants to coil stock. The Unist product line is built around the concept of applying lubrication in a precise manner resulting in fluid usage reduction, the elimination of unsightly, dangerous fluid mess, and increased efficiency due to an even and consistent application of fluid.

Proven success!

The industry's leading solution since 1999

Unist systems have proven themselves in the field and are currently running on over 400 can making lines around the world.

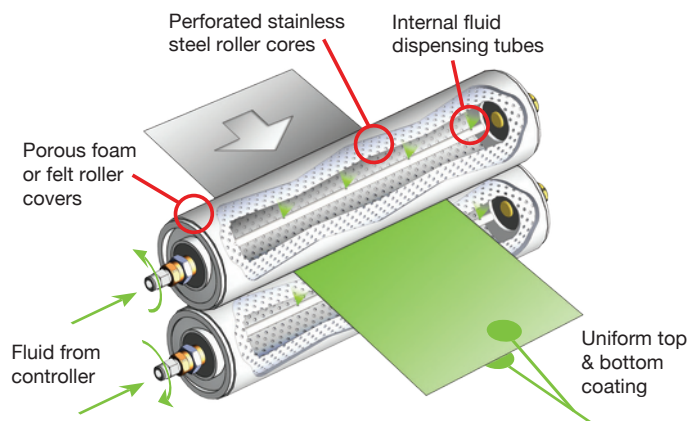


Unique internally-fed design

Unist's roller systems feature a unique internally-fed roller design and provide an environmentally-friendly solution for applying lubricants to coil or sheet stock.

The Unist product line is built around the concept of applying lubricant in a precise manner, which results in fluid usage reduction, the elimination of fluid mess, and increased production rates.

The design of the internally supplied rollers is the key to applying fluid. Inside each of the rollers there is a dispenser tube with several small holes spaced along its length. Every time fluid is injected into the dispenser tubes from the fluid controller, it is dispensed evenly across the inside of the rollers through these holes. The lubricant is then transferred to the stock through a durable polyester felt roller cover that applies the lubricant smoothly and evenly across both the top and bottom of the stock. As the system continues to cycle, additional lubricant is injected to replenish the lubricant applied to the stock.



The advantage of our internally-fed system is its consistent application of the exact amount of lubricant required for any particular operation.

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The Apex™ cupping press coil lubrication system

Designed specifically for coil lubrication in the can making industry, the Apex™ cupping press coil lubrication system gives can makers precise control over the application of their cupping lubricants. The unique internally-fed roller design of the Uni-Roller®, combined with the Apex™ controller has proven itself capable of applying lubricants in quantities as low as 15-20 mg/ft² (161-215 mg/m²). This level of control, combined with high reliability, provides years of exceptional performance with minimal maintenance.

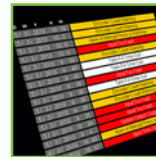
Always accurate

The Apex™ controller takes coil stock lubrication to new levels of precision and convenience with features not available in any other lubrication system. The Apex™ is an upgrade to Unist's proven SPR-2000™ technology and utilizes an electronically-controlled, positive-displacement pump to provide precise and repeatable volumes of lubricant to the coil. The positive-displacement pump is not impacted by changes in fluid viscosity, which allows consistent application of lubricant regardless of the ambient temperature. PLC-based controls allow for easy setup, troubleshooting, and monitoring of the lubrication system both at the press and remotely using Ethernet connectivity.



Detect issues before they interrupt production

Active monitoring



View previous alarm conditions

Alarm history



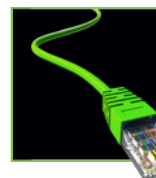
Consistent output

Positive-displacement metering pump



Easy to use

Color touch screen interface



Know on the go

Remotely monitor your lubrication system with ethernet connectivity

Keeping you running

The Apex™ features active monitoring to detect potential issues before they surface and an alarm history to view previous alarm states. A color touch screen interface displays all critical system parameters and makes adjusting the amount of lubricant on your coil simple. The Apex™ also tracks total lubricant dispensed, making it easy to monitor lubrication costs. The monitoring and process control features of the system are optimized for cupping presses. This makes the Unist system a reliable choice for meeting the stringent demands of can makers.



Critical info at a glance

The Apex™ system displays all critical runtime information in one central location. The home screen can be used to monitor the system and troubleshoot issues



Easy maintenance

Manual control allows the user to easily perform regular maintenance and troubleshooting procedures on the Apex™ system



Active monitoring

The Apex™ monitors all critical runtime parameters and alerts the user of potential problems and stops the press when critical issues arise



Easy roller setup

Changing the amount of lubricant applied to the coil stock has never been easier with the Apex™ system's roller setup screen



Alarm history

The Apex™ system displays a history of the previous 20 alarms for troubleshooting help and downtime diagnosis



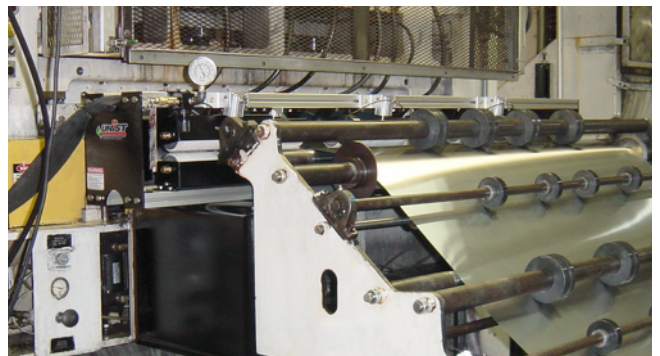
Totalizer: track fluid use

The Apex™ tracks total lubricant dispensed and can be reset to monitor lubricant consumed during a time interval of your choosing

Features

The Apex™ cupping press coil lubrication system	
Fluid viscosity & temperature independent	yes
Fluid level monitoring	yes
Fluid use tracking	yes
Works with all steel lubricating fluids	no
Complete control of fluid application across both sides of coil	yes
Uses proven, internally-fed rollers (last significantly longer than felt pads)	yes
Alarm error monitoring	yes
Alarm error history	yes
Touch screen interface	yes
Low-maintenance system reduces down time	yes
Monitors pressure levels in each output	yes

Systems in the field



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The SPR-2000™ cupping press coil lubrication system

The SPR-2000™ cupping press coil lubrication system gives can makers precise control over the application of their cupping lubricants. The unique internally-fed roller design of the Uni-Roller®, combined with the patented algorithms in the SPR-2000™ controller, allows application of fluids in quantities as low as 20 mg/ft² (215 mg/m²). This level of control, combined with high reliability, provides years of exceptional performance with minimal maintenance.

Set it & forget it

At the heart of the SPR-2000™ is a proprietary electronic controller. The controller intermittently actuates a bank of fluid dispensing solenoid valves. The programmable actuation of the valves is based on an intermittent (rate dependent) input from the line. A rotation sensor provides one input for each revolution of the roller on the Uni-Roller® applicator.



Monitor critical parameters

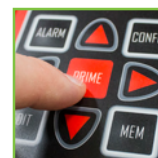
Monitor fluid level & pressure



View current alarm conditions



Compatible with a wide variety of fluids



Easy to follow menus

User-friendly controller



Reduce down time

Low-maintenance system

Need assistance configuring your system? We can help!

Keeping you running

Unist's SPR-2000™ cupping press coil lubrication system is engineered to meet the lubrication demands of aluminum and steel cupping lines. The patented Unist SPR-2000™ programmable fluid controller includes pressure and fluid level monitoring, as well as an auto-refill feature. The Uni-Roller® applicator includes a dispenser tube specifically optimized for the lubrication rates used in cupping presses. This makes the field proven SPR-2000™ cupping press coil lubrication system a reliable choice for meeting the stringent demands of can makers.

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6,567,710



Setup & configurations are executed with easy to follow menus

ACCESS CODE

```
Enter New Access
Code: XXXX
Use Access Code? N
Press > for Y/N
```

The ACCESS CODE SCREEN allows the user to setup passwords to control system access

AUTO SETUP

```
Enter Maximum Number
of Strokes or Cycles
per minute: 0___
```

AUTO SETUP MODE prompts the user for job specifications and automatically creates a new setup program for Uni-Roller® applications

EDIT

```
SETUP 001 EDIT
OUT  CNT DEL  DUR
LWR01 25__0___.200
UPR01 25__0___.200
```

The EDIT SCREEN allows the user to modify current setups

ALARM

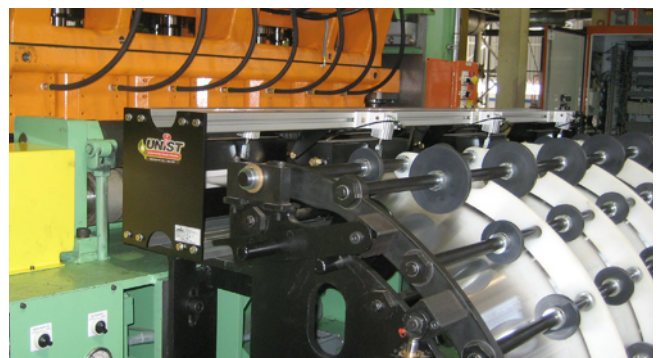
```
ALARMS (*=Active)
Scroll to View List
01 Low Fluid
02 Low Pressure
```

The ALARM SCREEN allows the user to monitor all critical system functions

Features

The SPR-2000™ cupping press coil lubrication system	
Fluid viscosity & temperature independent	no
Fluid level monitoring	yes
Fluid use tracking	no
Works with all steel lubricating fluids	yes
Complete control of fluid application across both sides of coil	yes
Uses proven, internally-fed rollers (last significantly longer than felt pads)	yes
Alarm error monitoring	yes
Alarm error history	no
Touch screen interface	no
Low-maintenance system reduces down time	yes
Monitors pressure levels in each output	no

Systems in the field



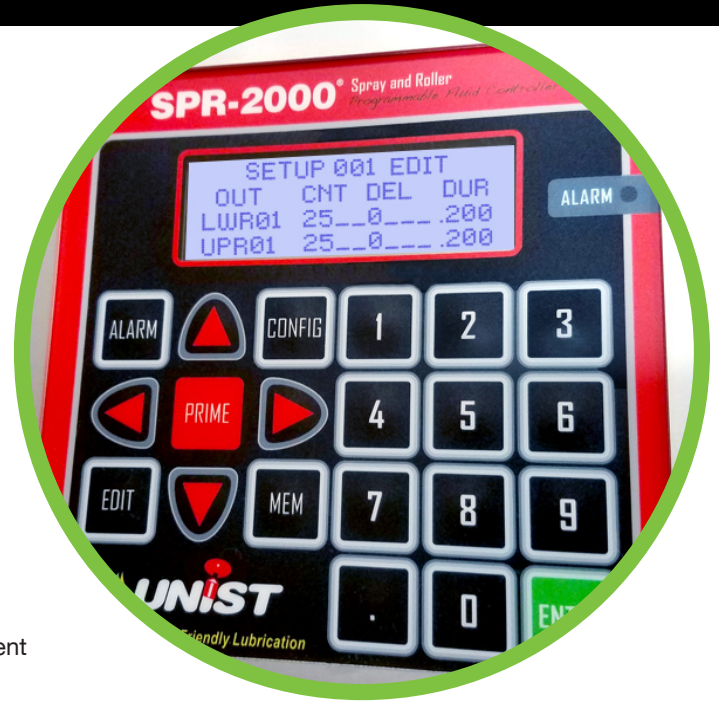
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Sheet lubrication system

Originally designed for easy integration into Crown™ multi-die lines, the Unist sheet lubrication system has found unparalleled success when implemented on various types of sheet fed presses. The amount of fluid applied by the SPR-2000™ controller is completely programmable and the unique internally-fed rollers provide a consistent coating across each sheet.

Set it & forget it

At the heart of the SPR-2000™ is a proprietary electronic controller. The controller intermittently actuates a bank of fluid dispensing solenoid valves. The programmable actuation of the valves is based on an intermittent (rate dependent) input from the line.



Systems in the field

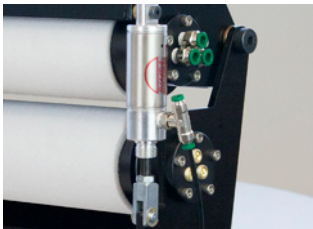


Keeping you running

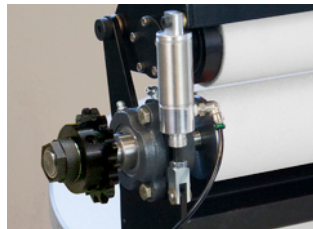
Unist's sheet lubrication systems are engineered to meet the demands of the aluminum and steel can market. The patented Unist SPR-2000™ programmable fluid controller includes pressure and fluid level monitoring. A cleaner press, reduced fluid consumption, and decreased downtime from inadequate lubrication are just some of the benefits of implementing the Unist sheet lubrication system.

Benefits:

- Even & consistent fluid application across the entire sheet
- Reduce fluid consumption
- Increase production rates
- Compatible with a wide variety of fluids



Adjustable roller pressure



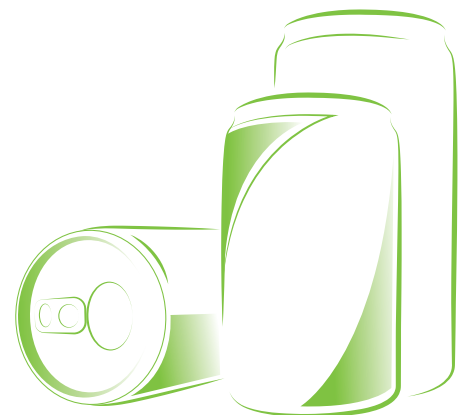
Rollers synchronized to sheet feed drive

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WE CAN

- Deliver consistent coil or sheet lubrication
- Increase your production rates
- Reduce your downtime



Unist systems provide fine control over stock lubrication and are the lubrication system of choice for can makers worldwide.

Need assistance configuring your system? We can help!

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Tab stock lubrication system

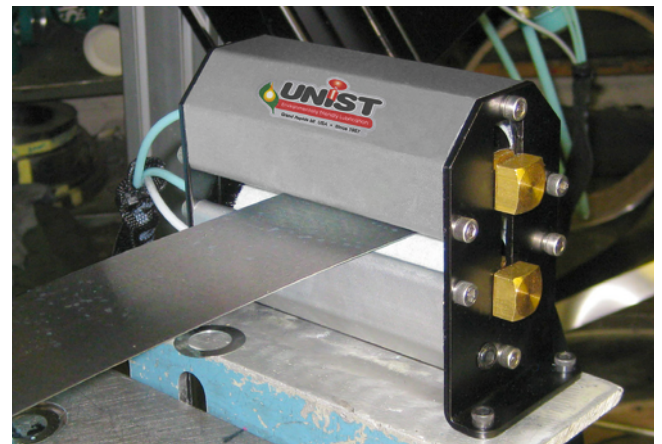
The tab stock lubrication system uses the Unist Mini-Roller™ and is an ideal solution for lubricating narrow coils commonly used in tab making.

Set it & forget it

At the heart of the SPR-2000™ is a proprietary electronic controller. The controller intermittently actuates a bank of fluid dispensing solenoid valves. The programmable actuation of the valves is based on an intermittent (rate dependent) input from the line.



Systems in the field



Keeping you running

When the Mini-Roller™ is combined with the SPR-2000™ controller, the Mini-Roller's™ unique internally-fed design will evenly apply lubricant to both sides of the coil. Programmable control ensures consistent lubrication resulting in increased production and decreased downtime.

Benefits:

- Even & consistent fluid application
- Reduce fluid consumption
- Increase production rates
- Compatible with a wide variety of fluids



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UNIST
HAS A SOLUTION
FOR YOU!

Contact Unist for more information!

Whether you're making cups, ends, or tabs, Unist has a solution which will provide even, consistent application of fluid, reduce your fluid consumption, and increase your production!

We look forward to the opportunity to demonstrate how we can help you save money while improving your manufacturing processes! Contact us to learn more about can making lubrication systems.

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