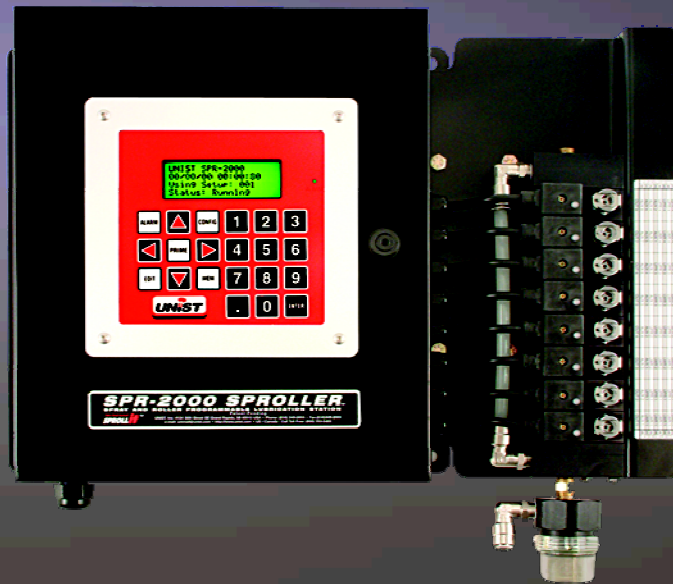


SPR-2000



**Programmable
Fluid Controller**

*Full-featured
programmable
control*



UNIST designed the patented SPR-2000 programmable fluid controller as the central control system for a complete lubrication system that could include one or more of the following:

- Uni-Roller Type S stock lubricators
- Mini-Roller stock lubricators
- Powered Uni-Roller blank lubricators
- UNIST spray nozzles
- In-die lube points

At the heart of the SPR-2000 is a proprietary electronic controller designed specifically for this application. The controller intermittently actuates a bank of fluid solenoid valves to dispense the required quantity of fluid to the appropriate lube points. The programmable actuation of the valves is based on an intermittent (rate dependent) input from the line. On stamping presses, this input is typically based on the stroke of the press and comes from a programmable limit switch (PLS) or the press controller. In continuous speed operations such as roll forming, an optional rotation sensor is available which provides one input for each roller revolution on a Uni-Roller Type S or Mini-Roller system.

The SPR-2000 menu-driven software will easily guide the user through the process of creating setups (programs) and saving them to memory for future use. The system can save up to 60 different setups in memory so changing to a new job is as simple as pushing a few buttons. An optional press control interface takes this functionality one step further, allowing standard press controls to interface directly with the SPR-2000 and change the setup based on the job currently running.

The SPR-2000 is also designed to monitor critical parameters such as fluid level, fluid pressure, and flow (optional sensors may be required) and alert the operator with an audible alarm, a red LED, and even an external alarm relay which can be wired directly to a press control. If unauthorized access to the system settings is an issue, the system can simply be configured with a user definable 4-digit access code. This allows the operator to monitor alarms and recall saved setups, but not modify system settings or create new setups.

Whatever your stock lubrication needs may be, the SPR-2000 Programmable Lubrication Station is your best choice for meeting them today and well into the future.

SPR-2000 Specifications:

Power Supply:

120 VAC, 50 or 60 Hz
240 VAC, 50 or 60 Hz

Control Inputs:

Dry contact (Switch closure)
Proximity sensor 10-30 VDC NPN, N.O.

Alarm Inputs:

Dry contact (switch closure)
Proximity sensor 10-30 VDC NPN, N.O.

Flow Monitor Inputs:

Dry contact (switch closure)
Proximity sensor 10-30 VDC NPN, N.O.

Outputs:

Same voltage as the power supply
Maximum power 10 watts per output

Alarm Relay:

Isolated, non-fused single pole double throw; 2 Amp load maximum

Maximum Input Rate:

50 Cycles/second at 50% duty Cycle
Minimum contact open or closed time:
10 milliseconds

Programmable Ranges:

Count (CNT): 0-255 counts
Delay (DEL): 0-100 seconds
(.010 second increments)
Duration (DUR): 0-100 seconds
(.010 second increments)

Fuses:

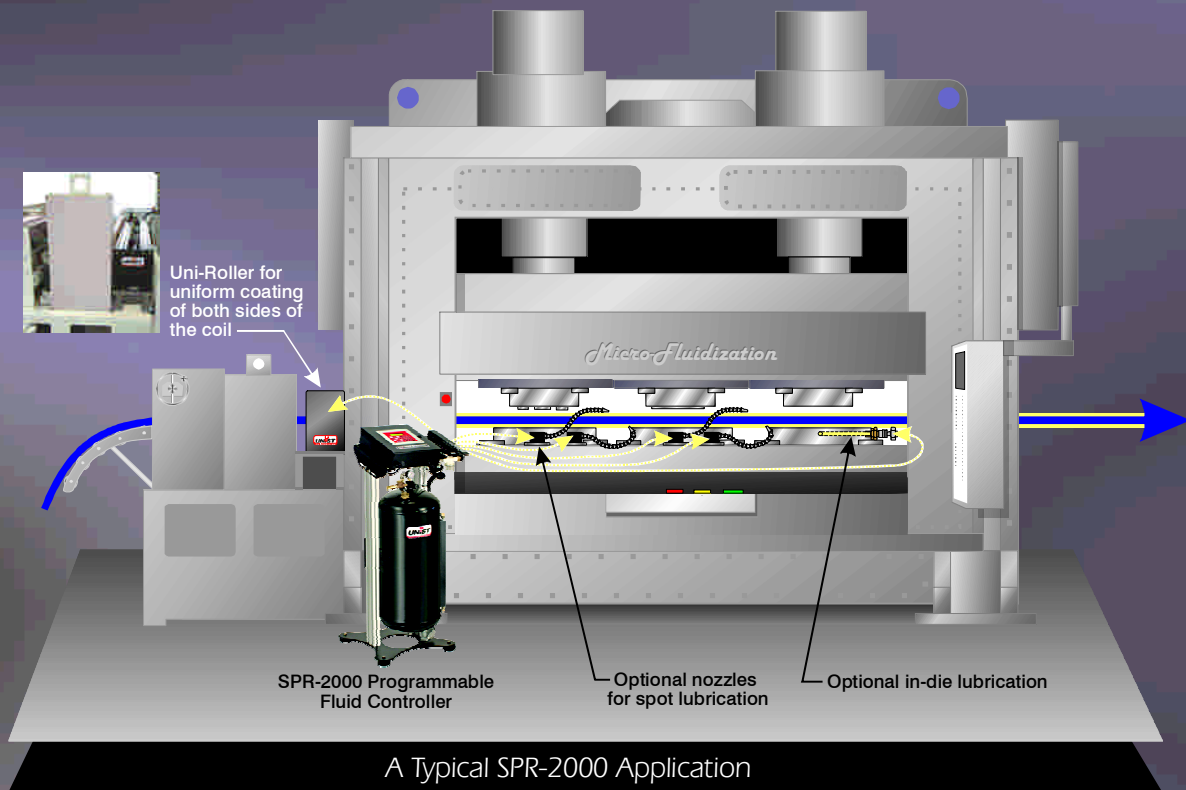
Supply Fuse: 2 amp
Output Fuse: 5 amp

Operating temperature range:

0° to +50 C° (+32° to +122° F)

Storage temperature range:

-20° to +70° C (-4° to +158° F)



SPR-2000 Programmable Fluid Controllers are designed to precisely control lubricant supplied to UNIST Uni-Rollers, UNIST spray nozzles and in-die lubrication points

Set up and configuration is 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 set up 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 2__ 0__ . 200
UPR02 2__ 0__ . 200

The EDIT SCREEN allows the user to modify current setups and program spray nozzles or other auxiliary functions.

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.

The SPR-2000 includes many features which make it easy and versatile to use. All operational setup and configuration are done through easy to follow menus which are shown on a high-contrast 4-line X 20 character LCD display.

Display Alarm Screen

- Lists all current alarm conditions.
- Scroll down if list continues below display.

Prime Button

- Press and hold to momentarily actuate all outputs in the current setup which have count (CNT) and duration (DUR) set greater than zero.

Display Edit Screen

- Use to enter new setups or edit existing setups.

Display Run Screen

- Use to run a saved setup
- Use to view setup without changing.



ALARM LED

- Illuminates when an alarm condition exists.

Display Config Menu

- Use at initial set up and to modify system operating parameters.

Enter Button

- Use to confirm data entries.
- Pressing repeatedly returns user to status screen (shown).

STEP
1
Determine output quantity

Number of individual rollers.....		
	+	
Number of spray nozzles.....		
	+	
Number of valves for additional lube points or future use.....		
	=	
Total Output Quantity.....		

STEP
2
Specify SPR-2000 Controller

For up to 6 outputs order **SPR-2000-6**
 For up to 14 outputs order **SPR-2000-14**
 For up to 22 outputs order **SPR-2000-22**

 Specify....SPR-2000-
STEP
3
Specify Valves

For 100/120 Volts, 50/60Hz order **SPR-2000-120** (Standard)
 For 220/240 Volts, 50/60Hz order **SPR-2000-240** (Optional)

 Specify....SPR-2000-


Order the same number of valves
as outputs (from step 1)

Valves are manifolded together and
pre-wired to the controller as shown.

STEP 4

Select Options



The **Pressure Switch** monitors for low fluid pressure. The switch is adjustable from 3-40 psi and is factory set at 5 psi.

Order Part Number:
SPR-2000-PRESS

Select Press Control

- 1) Wintriss/SmartPAC
- 2) Link Systems
- 3) Rockford Systems
- 4) Cileco Inc.
- 5) None

The **Press Control Interface** option allows the SPR-2000 to interface with several standard press controllers. This option allows the SPR-2000 system to automatically run the proper setup when a job is changed at the press controls.

Order Part Number:
SPR-2000-PCI



The **Flow Sensors** monitor each valve to verify that there is fluid flow when the valve is actuated.

Order Part Number:
SPR-2000-FLOSEN

Note: Order one Flow Sensor for each valve



The **Adjustable Stand** facilitates convenient, vibration-free mounting. The aluminum extruded legs of the stand also allow easy mounting of a 6 or 15 gallon tank. The hole in the base of the stand is large enough to accept a 3 gallon stainless steel tank.

Order Part Number:
SPR-2000-STAND

Ordering Example

SPR-2000 Ordering Example:

To order an SPR-2000 system for use with an SRL-23 Uni-Roller (4 individual rollers) and two spray nozzles, including the stand and pressure switch options, the following components should be ordered (assume 120 VAC supply voltage):

Quantity	Part Number	Component Description
1	SPR-2000-6	Programmable Fluid Controller
6	SPR-2000-120	Valves for SPR-2000
1	SPR-2000-PRESS	Pressure Switch Option for SPR-2000
1	SPR-2000-STAND	Stand for SPR-2000

Continue to the appropriate sections to complete system



See Page 15



See Page 29



See Page 23



See Page 41

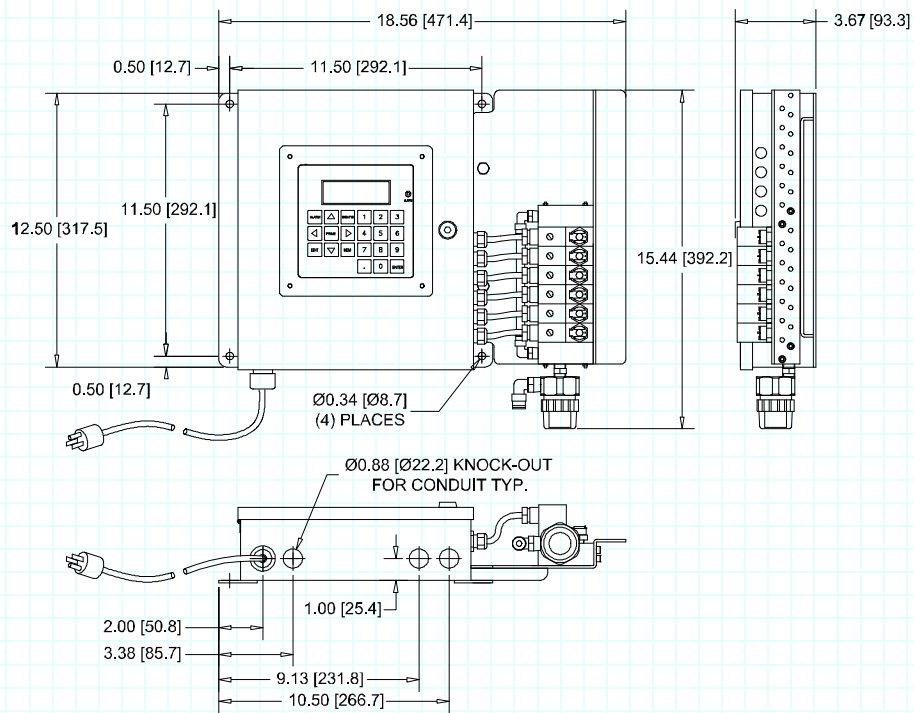


See Page 35

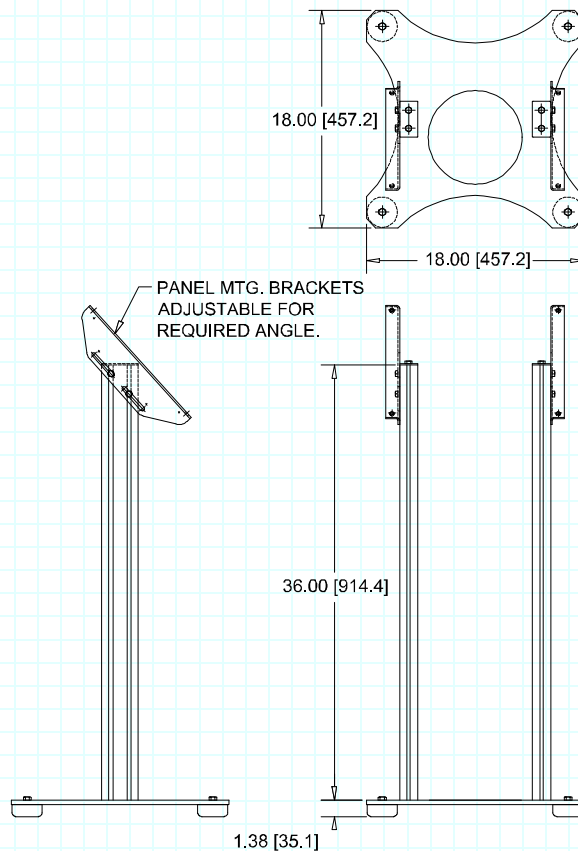
Choose one or more fluid application systems to be controlled by the SPR-2000

Choose a fluid supply system

Metalforming Lubrication Systems



Programmable Fluid Controller
 SPR-2000-6/14/22



Adjustable Stand for SPR-2000
 SPR-2000-STAND