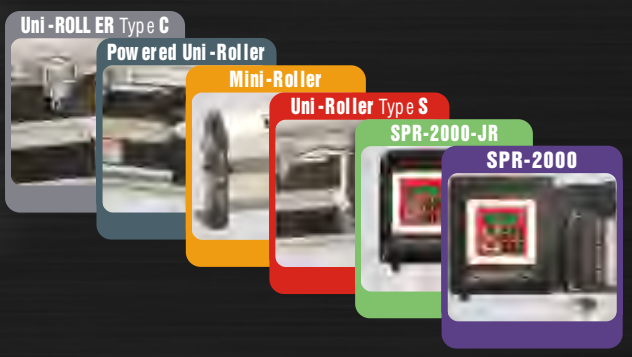
UNIST
Micro-Fluidization Systems

Metalforming Lubrication Systems



UNIST and Metalforming Lubrication

UNIST has long been recognized as a market leader in lubrication systems for manufacturing processes. Established in 1957, UNIST (then known as Uni-MIST) designed and marketed spray systems for use primarily in machining operations. Over time, the focus of UNIST evolved from spray systems to the controlled application of the proper fluids in all manufacturing processes. This change was fueled by the belief that many manufacturers experienced excessive fluid related costs including fluid disposal, fluid treating, and housekeeping related costs. The UNIST philosophy is that if we can reduce fluid consumption at the source, we can not only save our customers money, but also save the environment at the same time.

In the early 1990's, UNIST recognized that the problems of excessive fluid use were prevalent in the metal forming industry and there was no environmentally responsible method available to apply lubricants to coil stock in metal forming operations. This observation was the catalyst that prompted development of the revolutionary Uni-Roller application system which we introduced in 1993. The product was an immediate success in a market where manufacturers were searching for the means to conform to environmental regulations and reduce their costs. Most companies that purchased our first systems realized immediate savings of 50-90% on their lubricant costs, not to mention the associated downstream benefits including waste reduction and a cleaner work environment.

Energized by the success of the original product line, UNIST has continued to refine and expand our product line. In 1999 UNIST introduced the first SPR-2000 electronic fluid controller. This product greatly enhanced the range of operations suitable for Uni-Roller systems and expanded our customer base into more markets hungry for the ability to control their lubricant applications. One market of particular note is aluminum can manufacturing where they were able to replace an emulsified fluid with a neat oil applied in very minute amounts. The result was not only a huge savings on lubricant, but also increased production rates and the elimination of the biocide treated emulsion in their waste stream. Since the installation of that first system, can makers throughout the world have implemented the change to UNIST Uni-Roller systems.

Since that first system in 1993, UNIST has remained committed to developing the best products for applying fluids in metal forming operations. Our product line is continually being refined and expanded to meet the ever-changing needs of our customers. Our goal in printing this catalog is to present our broad range of products in an easy to understand format to better serve our customers. UNIST sincerely appreciates your business as we continue our mission as innovators of environmentally conscious lubrication solutions for the metal forming industry.

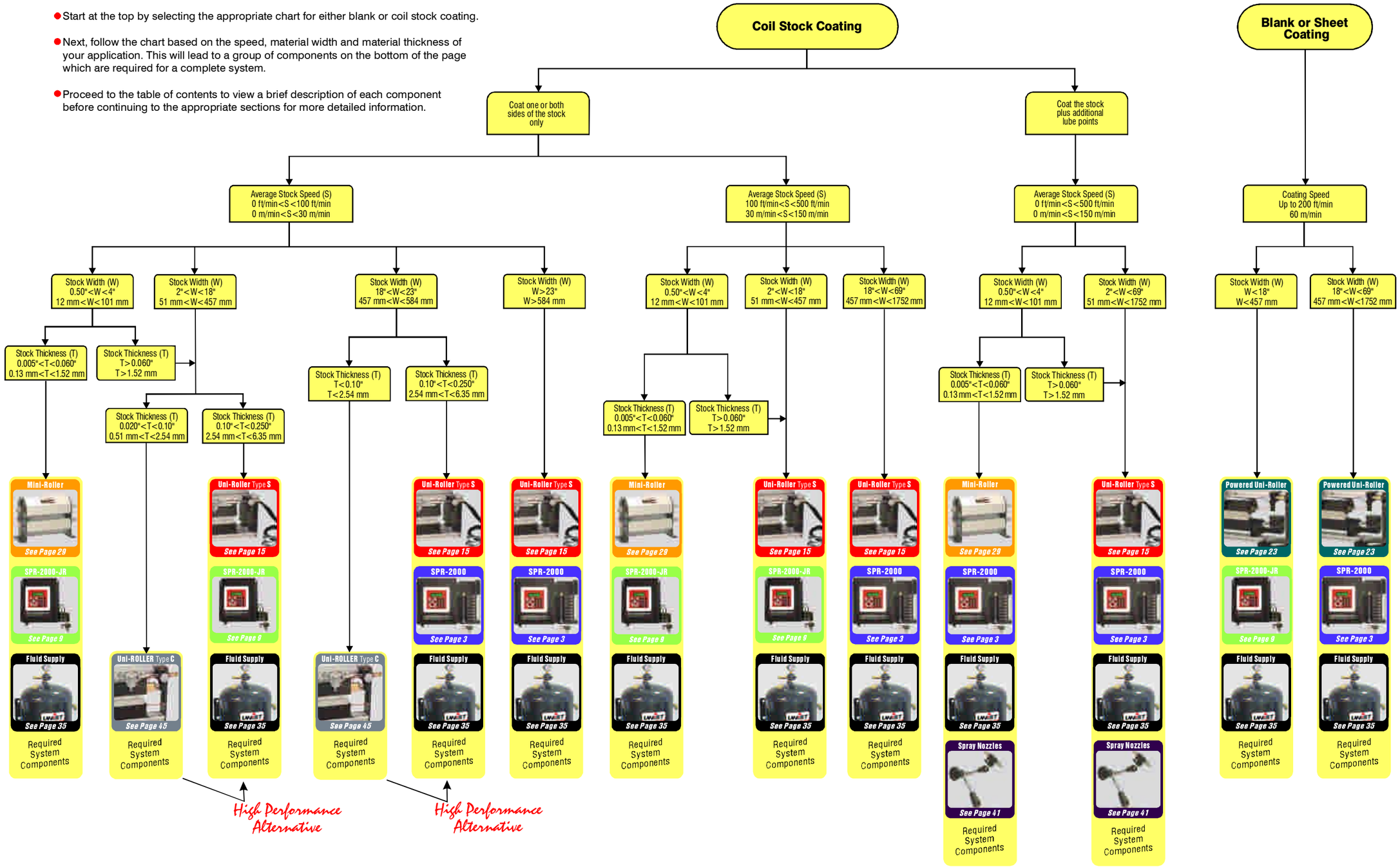
Flip page to view System Selection Guide

System Selection Guide

Metalforming Lubrication Systems

Use the flow chart on this page to select the proper system for most common applications.

- Start at the top by selecting the appropriate chart for either blank or coil stock coating.
- Next, follow the chart based on the speed, material width and material thickness of your application. This will lead to a group of components on the bottom of the page which are required for a complete system.
- Proceed to the table of contents to view a brief description of each component before continuing to the appropriate sections for more detailed information.



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UNIST Micro-Fluidization Systems

Application Questionnaire

Fax: 616-949-9503

If you would like UNIST to specify a system for your specific needs, please fill out a copy of this form and fax it to us at (616) 949-9503. Include a technical data sheet and a material safety data sheet on the fluid you will use with the system. A UNIST sales engineer will promptly reply with a system recommendation.

Company Information

Company Name _____ Date _____

Address _____ Telephone _____

_____ Fax _____

_____

Contact Person _____ Distributor _____

e-mail _____ Contact _____

Telephone _____

Fax _____

Operation Information

Type of Operation:

☐ Stamping ☐ Roll Forming

☐ Drawing ☐ Cold Rolling

☐ Fine Blanking ☐ Other _____

Coil Coating

Machine Used _____

Press Rate _____ ☐ strokes/min.

Material Feed Rate _____ ☐ inches/stroke ☐ mm/stroke

☐ feet/min. ☐ mm/min.

Material Information

Type of Material _____

Material Width Range _____ ☐ Inches ☐ mm

Material Thickness Range _____ ☐ Inches ☐ mm

Blank Coating

Machine Used _____

☐ Manually Fed ☐ Conveyor Fed

Blank Feed Rate (pieces per min) _____

Conveyor Speed (feet per min) _____

Blank Size Information

Type of Material _____

Material Width Range _____ ☐ Inches ☐ mm

Material Length Range _____ ☐ Inches ☐ mm

Material Thickness Range _____ ☐ Inches ☐ mm

Lubricant Information

Lubricant Used _____ Manufacturer _____

Lubricant Type

☐ Petroleum ☐ Semi-synthetic

☐ Synthetic ☐ Other _____

Is Lubricant Water Soluble ? ☐ Yes ☐ No ☐ If Yes _____ : _____ Water:Concentrate Rate

Did you send a fluid sample kit to UNIST?

☐ Yes

☐ No

Present Lubrication Application System:

☐ None

☐ Spray

☐ Roller

☐ Other

Worldwide 616.949.0853 - USA and Canada 800.253.5462

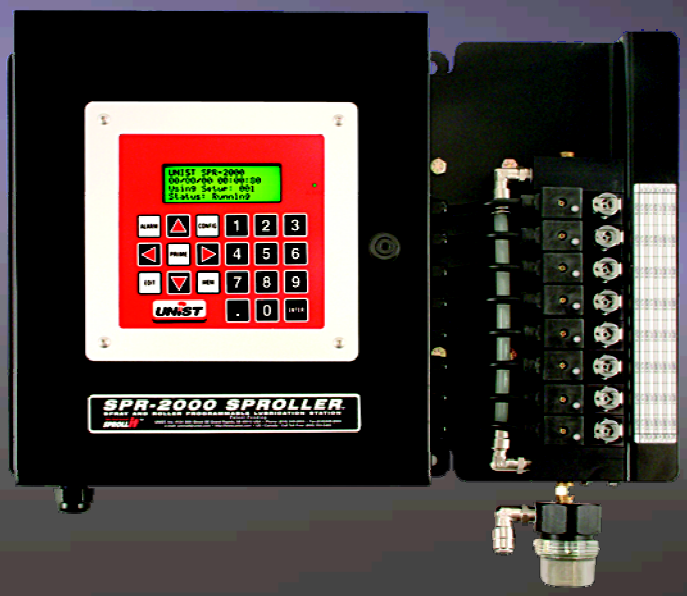
SPR-2000

Programmable Fluid Controller

SPR-2000 Programmable Fluid Controller

Metalforming Lubrication Systems

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

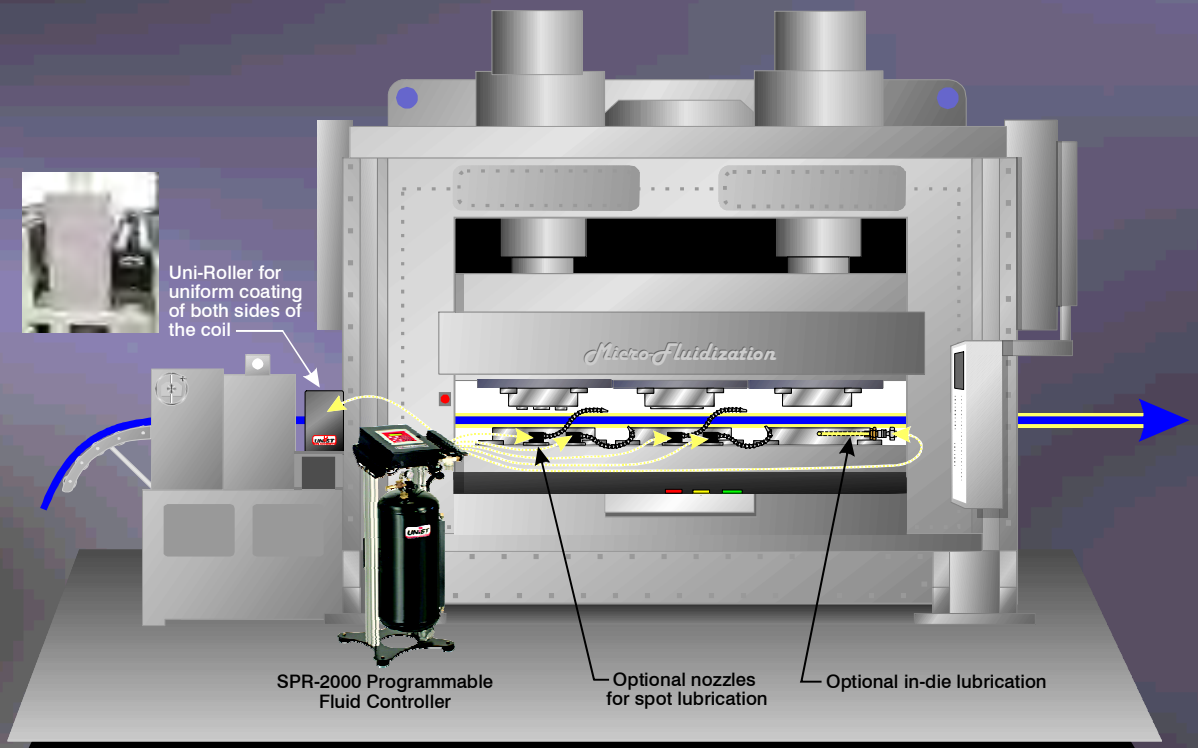
Programmable Ranges:
Count (CNT): 0-255 counts
Delay (DEL): 0-100 seconds
(.010 second increments)
Duration (DUR): 0-100 seconds
(.010 second increments)

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 Controller



A Typical SPR-2000 Application

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 auxillary 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- ☐☐☐

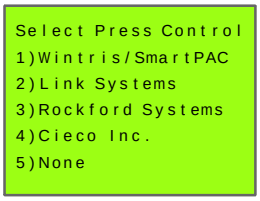
Order the same number of valves as outputs (from step 1)

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



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

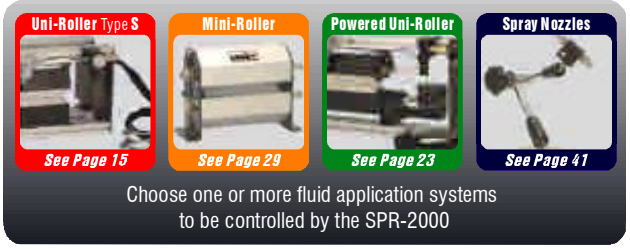
Ordering Example

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):

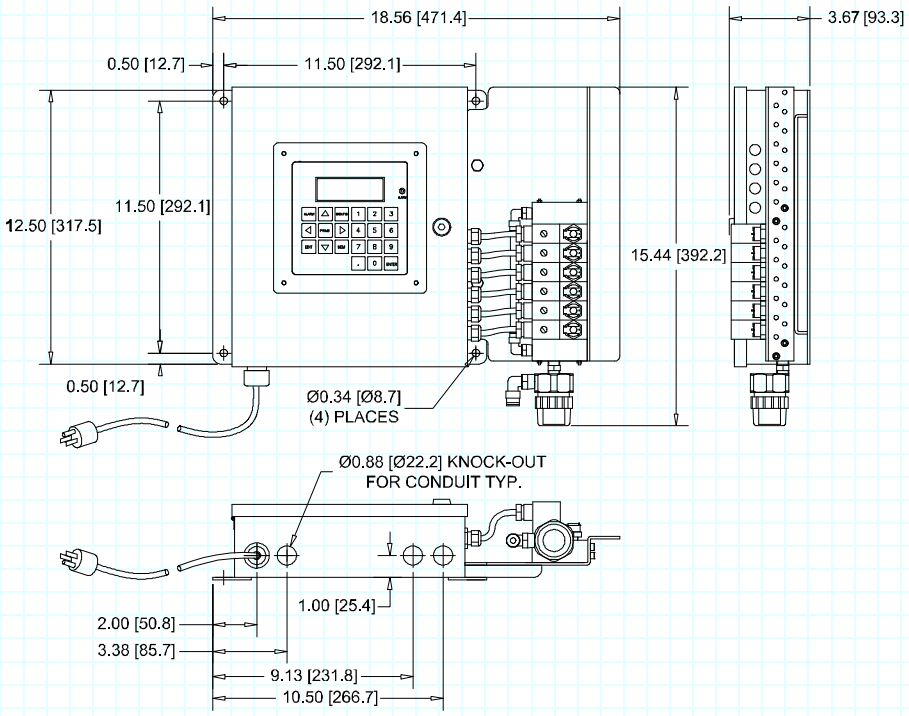
Quantity	Part Number	Component Description
1	SPR-2000-6	Programmable Fluid Controller
6	SPR-2000-120	Valves for SPR-2000
1	SPR-2000-PRESS	Pressure Switch Option for SPR-2000
1	SPR-2000-STAND	Stand for SPR-2000

Continue to the appropriate sections to complete system

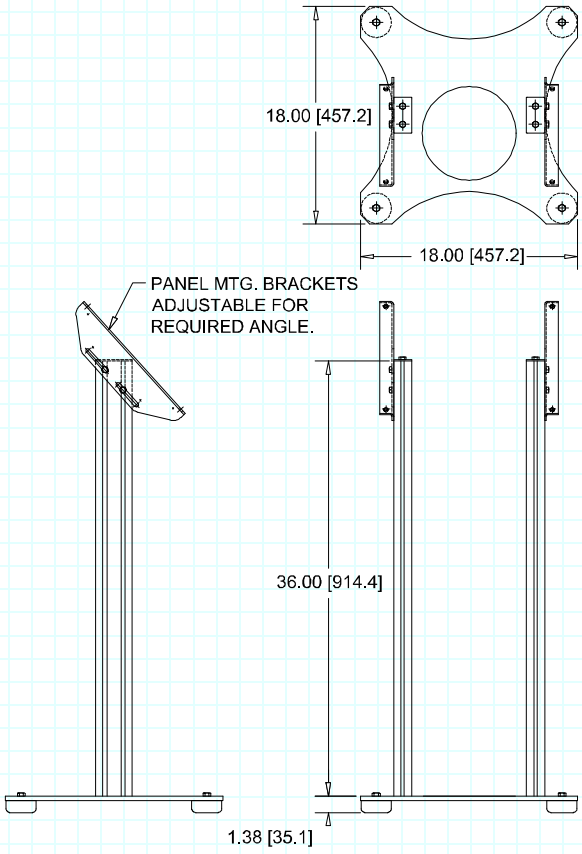


Choose one or more fluid application systems to be controlled by the SPR-2000

Choose a fluid supply system



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



Adjustable Stand for SPR-2000
SPR-2000-STAND

Worldwide 616.949.0853 - USA and Canada 800.253.5462

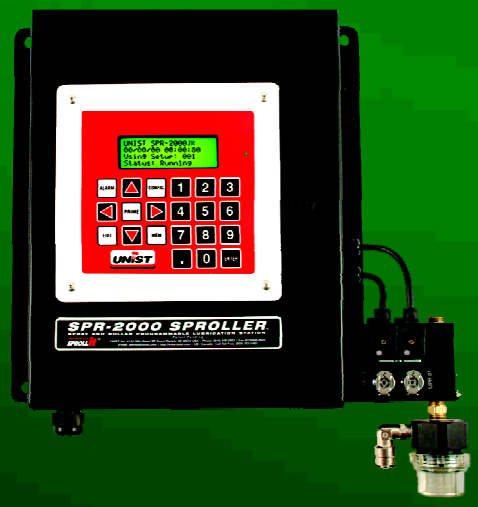
SPR-2000-JR

Programmable Fluid Controller

SPR-2000-JR Programmable Fluid Controller

SPR-2000-JR Programmable Fluid Controller

Metalforming Lubrication Systems



An economical alternative to the SPR-2000

The patented SPR-2000-JR programmable fluid controller was designed as a less costly alternative to the standard SPR-2000 programmable fluid controller. It can serve as the fluid control system for any application where only two outputs are required, including the following:

- A Uni-Roller Type S up to 18" (457mm) wide
- A horizontal or vertical Mini-Roller
- A Powered Uni-Roller up to 18" (457mm) wide
- Up to two spray nozzles

At the heart of the SPR-2000-JR is a proprietary electronic controller designed specifically for this application. The controller intermittently actuates two fluid solenoid valves (included) 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-JR 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-JR and change the setup based on the job currently running.

The SPR-2000-JR is also designed to monitor critical parameters such as fluid level and fluid pressure (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.

The SPR-2000-JR programmable fluid controller is the ideal choice for lubricant control where only two fluid valves are required. With most of the features of its big brother (the SPR-2000), but a significantly lower price, the SPR-2000-JR allows you to enjoy the accuracy and reliability of electronic control at an entry level price!

If your application requires more than two valves to supply Uni-Roller systems with multiple roller sets and/or multiple nozzles or in-die lube points, check out the SPR-2000 section of this catalog.

SPR-2000-JR 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.

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)

Typical SPR-2000-JR System Configurations

A Uni-Roller Type S up to 18" (457mm) wide

A horizontal or vertical Mini-Roller

A Powered Uni-Roller up to 18" (457mm) wide

Up to two spray nozzles

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 auxillary 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-JR 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 SPR-2000-JR Part Number

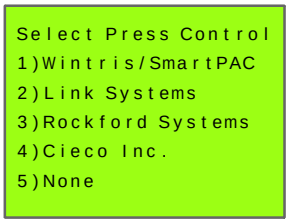
For 100-120 Volts 50/60 Hz Order **SPR-2000-JR-120**

For 220-240 Volts 50/60 Hz Order **SPR-2000-JR-240**

STEP 2 Select Options

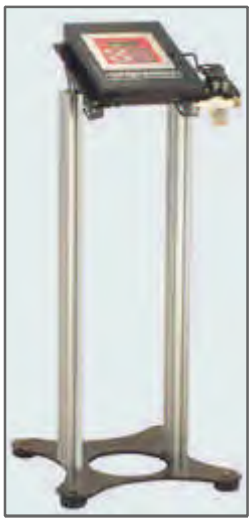
The **Pressure Switch** monitors for low fluid pressure. The switch is adjustable from 3-40 psi and is factory set at 5 psi.

Order Part Number:
SPR-2000-PRESS



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

Order Part Number:
SPR-2000-PCI



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

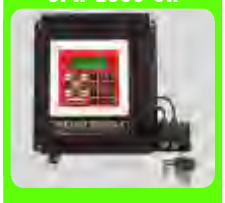
Ordering Example

SPR-2000-JR Ordering Example:

To order an SPR-2000-JR with 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-JR-120	Programmable Fluid Controller
1	SPR-2000-PRESS	Pressure Switch Option for SPR-2000-JR
1	SPR-2000-STAND	Stand for SPR-2000-JR

SPR-2000-JR



Uni-Roller Type S

See Page 15

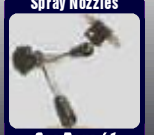
Mini-Roller

See Page 00

Powered Uni-Roller

See Page 23

Spray Nozzles



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

Fluid Supply

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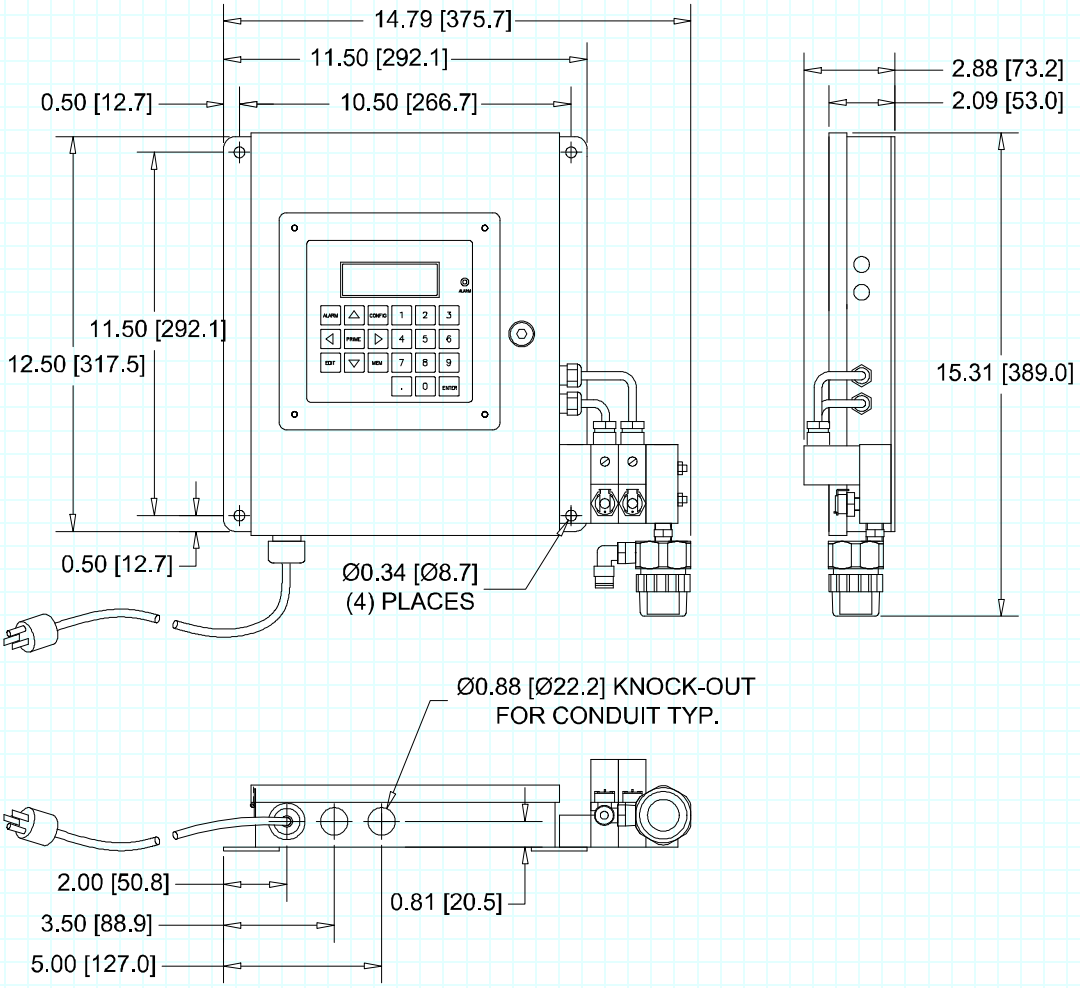
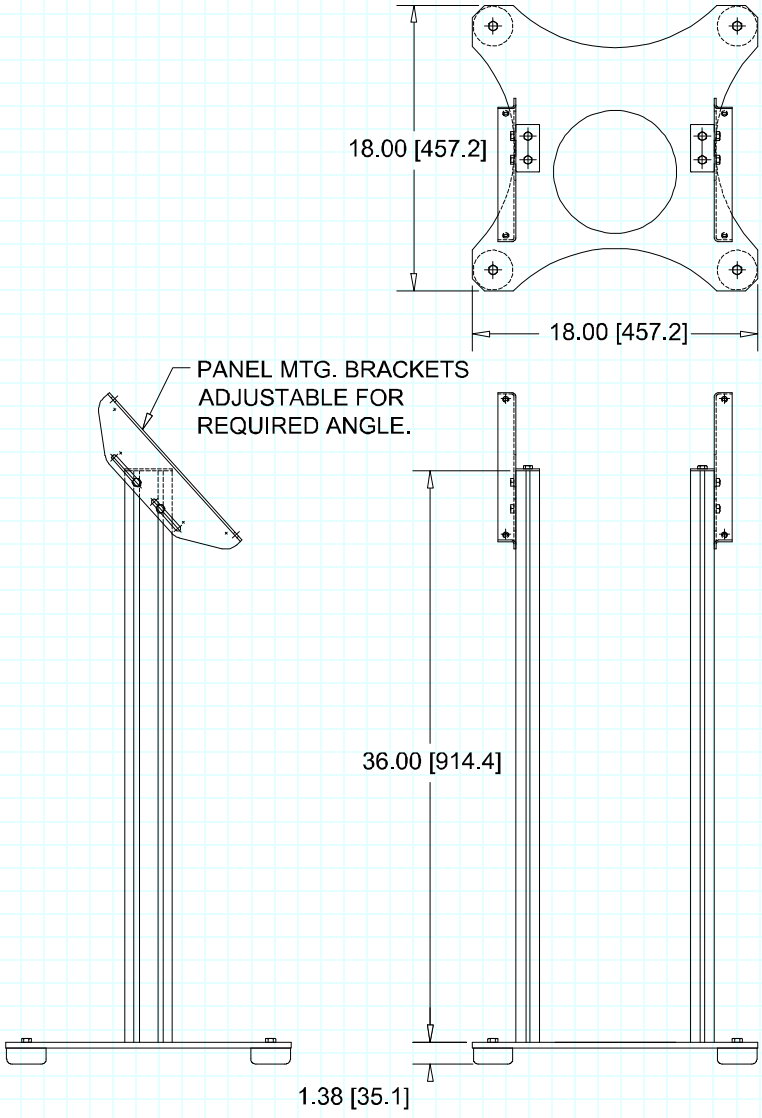
Choose a fluid supply system



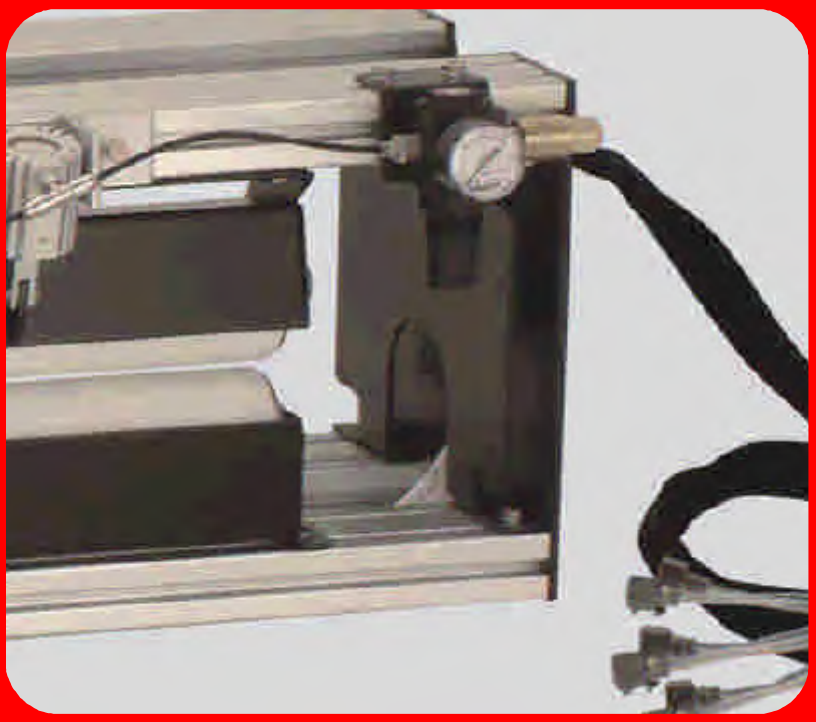
Programmable Fluid Controller
SPR-2000-JR-120/240



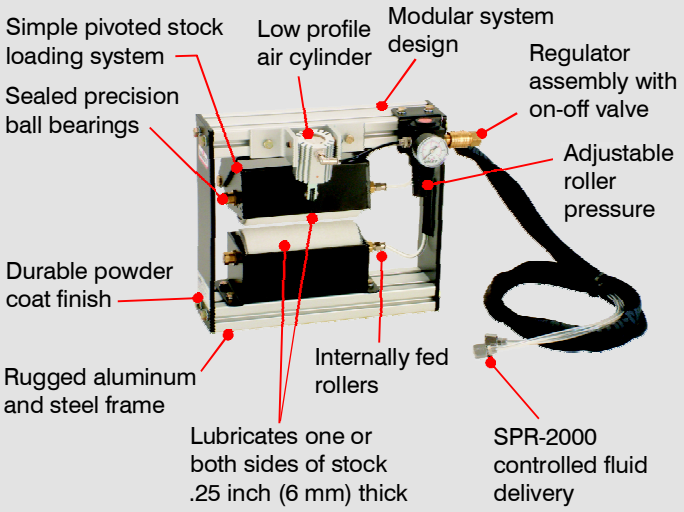
Adjustable Stand for SPR-2000-JR
SPR-2000-STAND

Worldwide 616.949.0853 - USA and Canada 800.253.5462

Uni-Roller Type S



STANDARD FEATURES



The patented Uni-Roller Type S lubricators are designed to be the ultimate solution in continuous stock lubrication. When combined with an SPR-2000 or SPR-2000-JR programmable fluid controller, the Uni-Roller Type S will apply the correct amount of fluid for your application and do it consistently day after day.

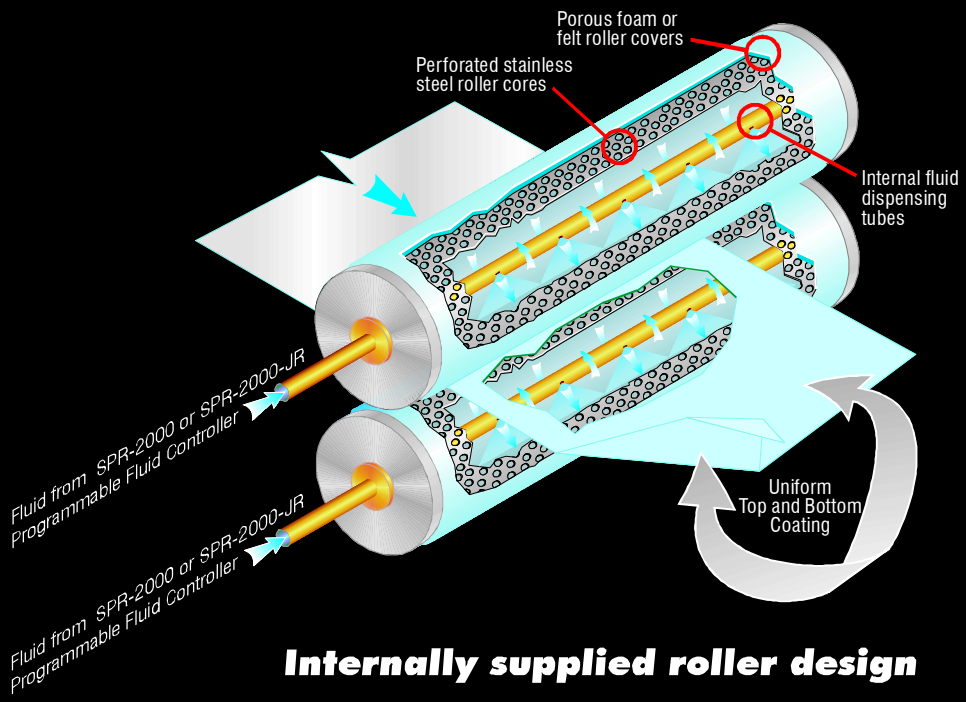
The design of the internally supplied rollers is the key to applying the fluid. As illustrated below, inside each of the rollers there is a dispenser tube with several small holes spaced along its length. Every time fluid is injected into the dispenser tubes from the fluid controller, it is dispensed evenly across the inside of the rollers through these holes.

Best roller system for a broad range of applications

The lubricant is then transferred to the stock through a durable polyester felt or polyurethane foam roller cover. These cover materials apply 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 the system is its consistent application of the exact amount of lubricant required for any particular operation. This eliminates the mess and waste associated with in-die spray systems and traditional externally lubricated roller systems. By applying the proper amount of lubricant, there is little cleanup required and no recirculating fluid to treat or dispose. This results in not only a cleaner shop, but also significant savings from decreased fluid waste, decreased tool wear, improved part quality and increased production rates.Many customers have reported savings resulting in a return on investment of less than six months!

The Uni-Roller Type S systems are modular in design, so there are many similar features between the smallest unit (for up to 3" (76 mm) wide stock) and the largest standard unit (for up to 69" (1752 mm) wide stock). Each of the systems for stock over 18" (457 mm) are constructed with multiple 12" (305 mm) wide roller sets which are staggered and slightly overlapped. This unique design permits the lubricant to be controlled in zones and allows for almost limitless unit size over the standard 69" (1752 mm) width.



Internally supplied roller design

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

Benefits:
- Reduced Fluid Consumption
- Improved Part Quality
- Increased Production Rates
- Decreased Part Cleaning
- Cleaner Work Areas
- No Fluid Recycling
- Reduced Fluid Management Concerns

SRL-3-X-S-X
Spring Latch Roller Pressure
STOCK WIDTH TO 3 INCHES (76mm)

SRL-6-X-S-X
Spring Latch Roller Pressure
STOCK WIDTH TO 6 INCHES (152mm)

SRL-12-X-S-X
Spring Latch Roller Pressure
STOCK WIDTH TO 12 INCHES (305mm)

SRL-3-X-P-X
Pneumatic Roller Pressure
STOCK WIDTH TO 3 INCHES (76mm)

SRL-6-X-P-X
Pneumatic Roller Pressure
STOCK WIDTH TO 6 INCHES (152mm)

SRL-12-X-P-X
Pneumatic Roller Pressure
STOCK WIDTH TO 12 INCHES (305mm)

SRL-18-X-P-X
Pneumatic Roller Pressure
STOCK WIDTH TO 18 INCHES (457mm)

SRL-23-X-P-X
Pneumatic Roller Pressure
STOCK WIDTH TO 23.50 INCHES (597mm)

SRL-35-X-P-X
Pneumatic Roller Pressure
STOCK WIDTH TO 35 INCHES (864mm)

SRL-46-X-P-X
Pneumatic Roller Pressure
STOCK WIDTH TO 46.50 INCHES (1143mm)

SRL-58-X-P-X
Pneumatic Roller Pressure
STOCK WIDTH TO 58 INCHES (1422mm)

SRL-69-X-P-X
Pneumatic Roller Pressure
STOCK WIDTH TO 69.50 INCHES (1765mm)

STEP 1 Determine Uni-Roller Type S Part Number

SRL - 3 - PF - P - R

Determine the Base System

For Stock Width up to	3”	(76mm)	**Use 3**
For Stock Width up to	6"	(152mm)	**Use 6**
For Stock Width up to	12”	(305mm)	**Use 12**
For Stock Width up to	18”	(457mm)	**Use 18**
For Stock Width up to	23.5”	(597mm)	**Use 23**
For Stock Width up to	35”	(889mm)	**Use 35**
For Stock Width up to	46.5”	(1181mm)	**Use 46**
For Stock Width up to	58”	(1473mm)	**Use 58**
For Stock Width up to	69.5”	(1765mm)	**Use 69**

Determine Roller Cover Material

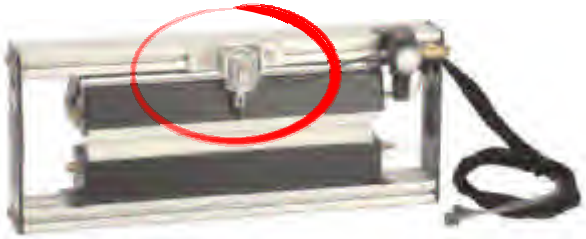
Polyester Felt Cover (*Standard*)
Extremely durable and compatible with a broad range of fluids.

Use **PF**

Polyurethane Foam Cover (*Optional*)
for use with vanishing oils and with thin stock which is narrow compared to overall roller width. Due to limited fluid compatibility, consult factory prior to selecting this option.

Use **P**

Determine Roller Pressure Method



Pneumatic Cylinder (*Standard*)
Preferred method for maintaining pressure on stock and opening the rollers to load a new coil.

Use **P**

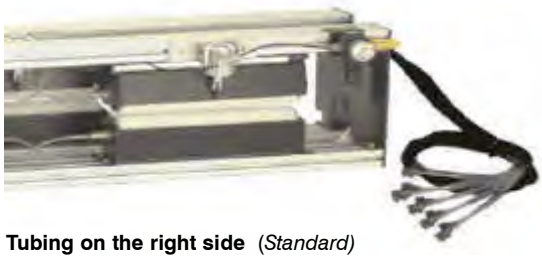
Spring Latch (*Optional*)
Optional Method for limited space. Available for SRL - 3, 6 and 12 only

Use **S**

Determine Supply Tubing and Regulator Location

(as viewed from the feed side of the Uni-Roller)

Tubing on the left side (*Optional*)
Use **L**



Tubing on the right side (*Standard*)
Use **R**

STEP 2 Select Options

The **Stock Guide** option facilitates easy loading of the coil into a Uni-Roller system. Not available on Spring Latch units.

ORDER PART NUMBER: **1392**
(Includes 1 upper and 1 lower guide)

Order quantity = Number of roller sets + 1
Example: For RL23 Order (3)
Part Number 1392

The **Double Cylinder** option is required for stock thickness over .25 inches. Double cylinders allow the rollers to float with the stock. Not available on spring latch units.

ORDER PART NUMBER: **1705-KIT-I**
Order quantity = Number of roller sets

The **Proximity Sensor** option is used to provide an input to an SPR-2000 (or SPR-2000-JR) controller based on roller rotation. Select when an intermittent signal from the press is not available.

ORDER PART NUMBER: **PROX SENSOR**
Order one per Uni-Roller system

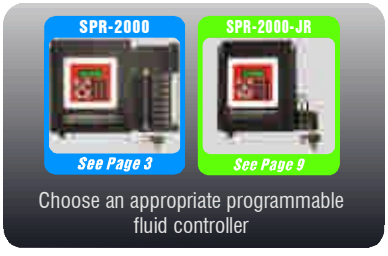
Ordering Example

Uni-Roller Type S Ordering Example:

To order a Uni-Roller Type S for use with 20” wide stock with polyester felt roller covers, the tubing on the right hand side and the stock guide option installed, the following should be ordered:

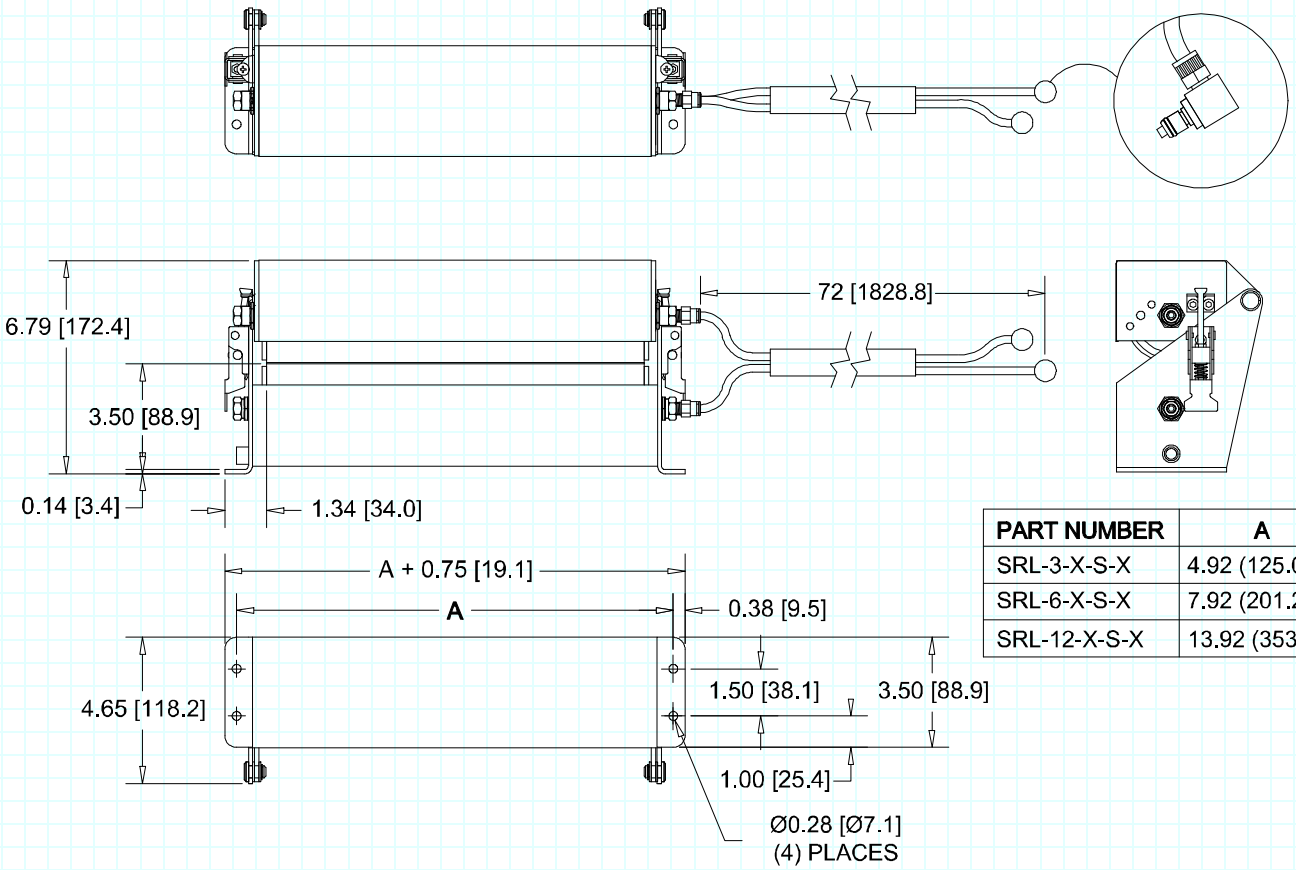
Quantity	Part Number	Component Description
1	SRL-23-PF-P-R	23.5” wide Uni-Roller system
3	1392	Stock Guide option

Continue to the appropriate sections to complete system



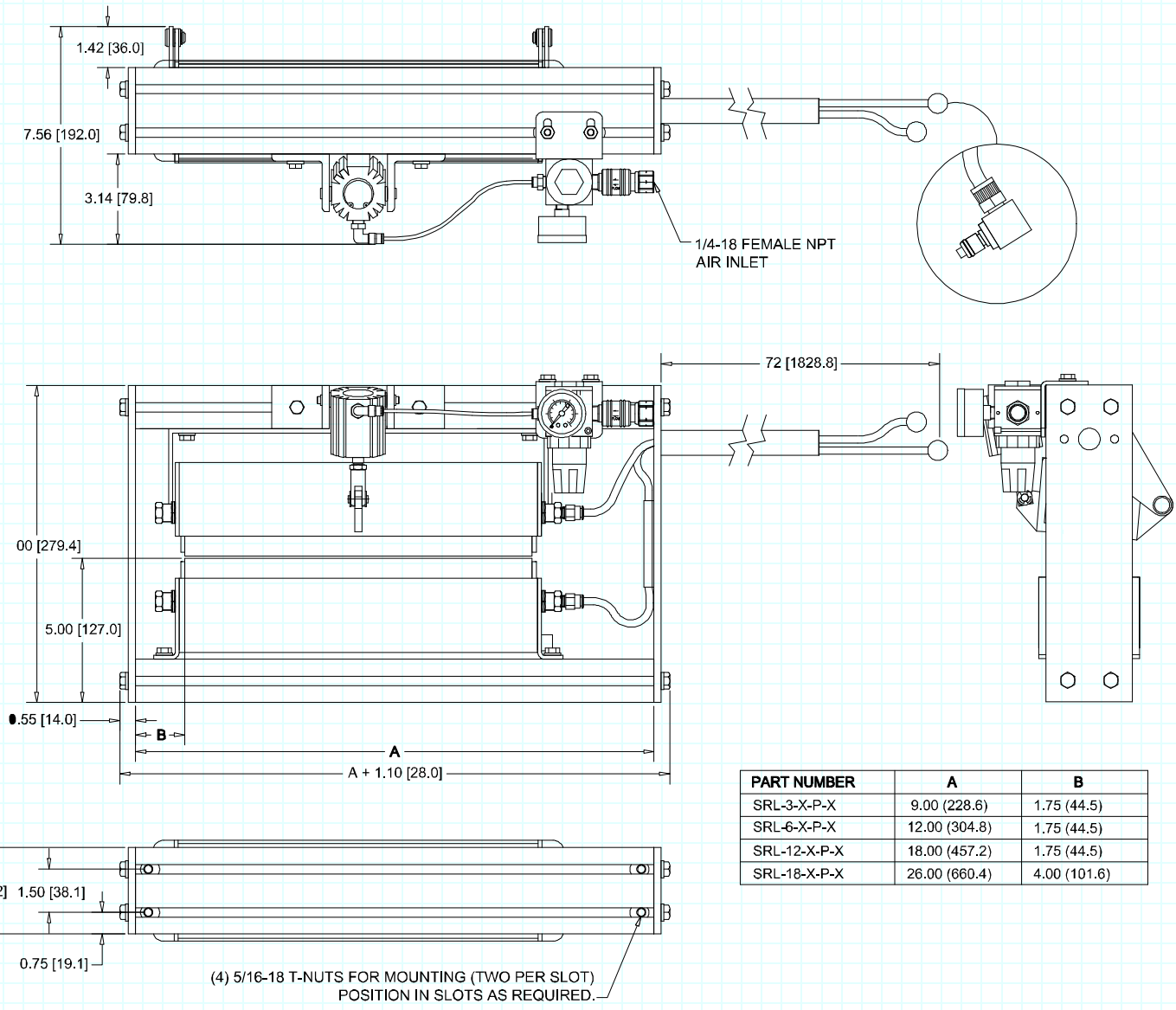
Choose an appropriate programmable fluid controller

Choose a fluid supply system



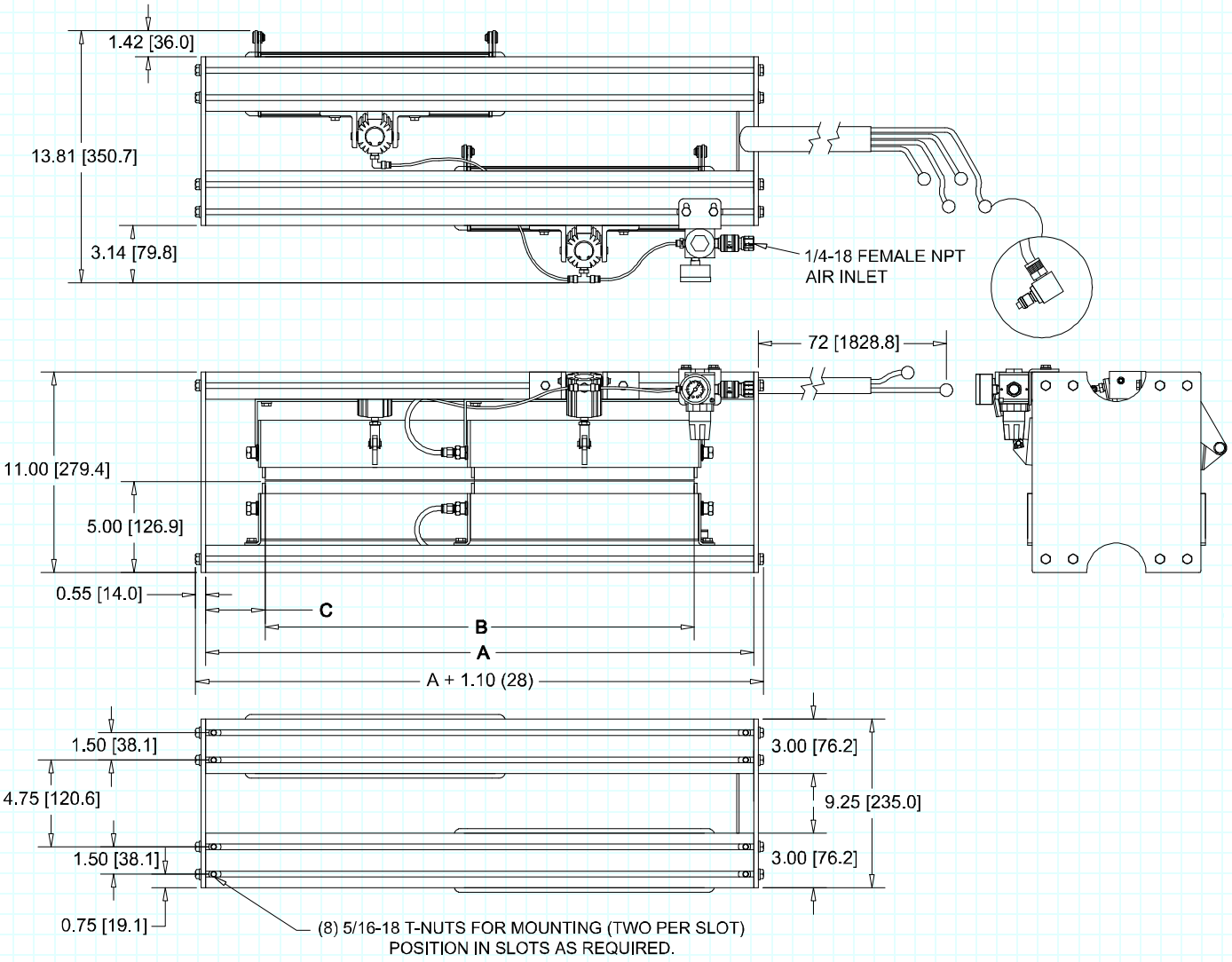
PART NUMBER	A
SRL-3-X-S-X	4.92 (125.0)
SRL-6-X-S-X	7.92 (201.2)
SRL-12-X-S-X	13.92 (353.6)

Uni-Roller Type S
SRL-3/6/12-X-S-X



PART NUMBER	A	B
SRL-3-X-P-X	9.00 (228.6)	1.75 (44.5)
SRL-6-X-P-X	12.00 (304.8)	1.75 (44.5)
SRL-12-X-P-X	18.00 (457.2)	1.75 (44.5)
SRL-18-X-P-X	26.00 (660.4)	4.00 (101.6)

Uni-Roller Type S
SRL-3/6/12/18-X-P-X

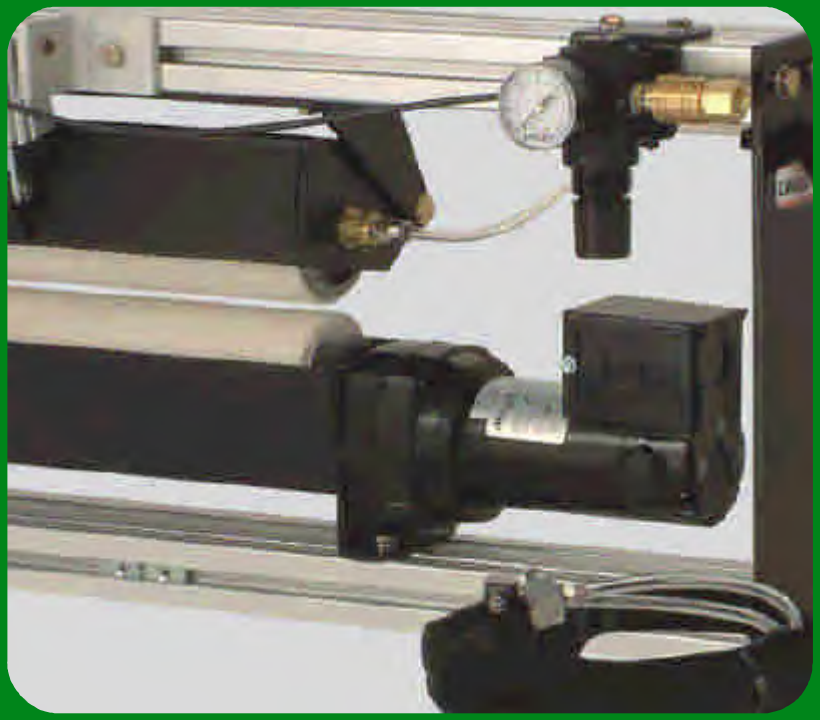


PART NUMBER	A	B	C
SRL-23-X-P-X	30.00 (762.0)	23.50 (596.9)	3.25 (82.5)
SRL-35-X-P-X	42.00 (1066.8)	35.00 (889.0)	3.50 (88.9)
SRL-46-X-P-X	54.00 (1371.6)	46.50 (1181.1)	3.75 (95.3)
SRL-58-X-P-X	66.00 (1676.4)	58.00 (1473.2)	4.00 (101.6)
SRL-69-X-P-X	78.00 (1981.2)	69.50 (1765.3)	4.25 (108.0)

Uni-Roller Type S
SRL-23/35/46/58/69-X-P-X

Worldwide 616.949.0853 - USA and Canada 800.253.5462

Powered Uni-Roller



The blank coating solution

The UNIST Powered Uni-Roller lubricators are designed to be the ultimate solution in blank stock lubrication. When combined with an SPR-2000 or SPR-2000-JR programmable fluid controller, the Powered Uni-Roller will apply the correct amount of fluid for your application and do it consistently from one blank to the next.

Like all Uni-Roller systems, the design of the internally supplied rollers is the key to applying the fluid. As illustrated below, 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.

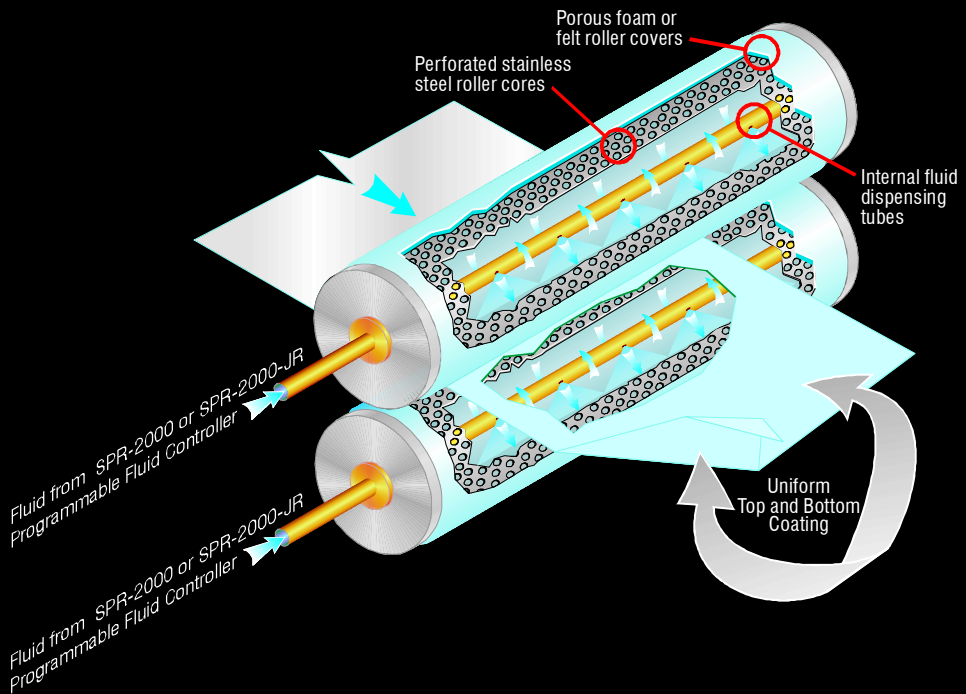
The lubricant is then transferred to the stock through a durable polyester felt or polyurethane foam roller cover. These cover materials apply the lubricant smoothly and evenly across both the top and bottom of the blank. As the system continues to cycle, additional lubricant is injected into the rollers to replenish the lubricant applied to the stock.

The advantage of the system is its consistent application of the exact amount of lubricant required for any particular operation. This eliminates the mess and waste associated with spray systems and traditional externally lubricated roller systems. By applying the proper amount of lubricant, there is little cleanup required and no recirculating fluid to treat or dispose. This results in not only a cleaner shop, but also significant savings from decreased fluid waste, decreased tool wear, improved part quality, increased production rates and decreased fluid waste.

There are two styles of Powered Uni-Roller systems to cover a broad range of materials. For blanks up to 18 inches (457 mm) wide, the lower roller is directly driven by a 1/17 horsepower DC gear motor providing speeds up to 200 feet/minute (61 m/minute). The compact drive arrangement and single roller design of these systems allows them to operate in limited spaces.

The systems for blanks wider than 18 inches (457 mm) utilize a ¼ horsepower gear motor driving a central shaft. Each individual lower roller is driven off this shaft with a timing belt, providing speeds up to 145 feet/minute (44 m/minute). Each of these systems are constructed with multiple 12 inch (305 mm) wide roller sets which are staggered and slightly overlapped. This unique design permits the lubricant to be controlled in zones and allows for almost limitless unit size beyond the 58 inch (1422 mm) maximum standard width. These systems are also completely enclosed with rugged 10 gauge (3.4 mm) guarding for operator safety.

For applications that require integration into an automated production line, there is an optional variable frequency AC drive available which allows many advanced motor control functions. UNIST also has the capability to design special systems which incorporate conveyors and blank sensing for a complete blank lubrication solution. *Please contact the factory with your specifications for more information.*



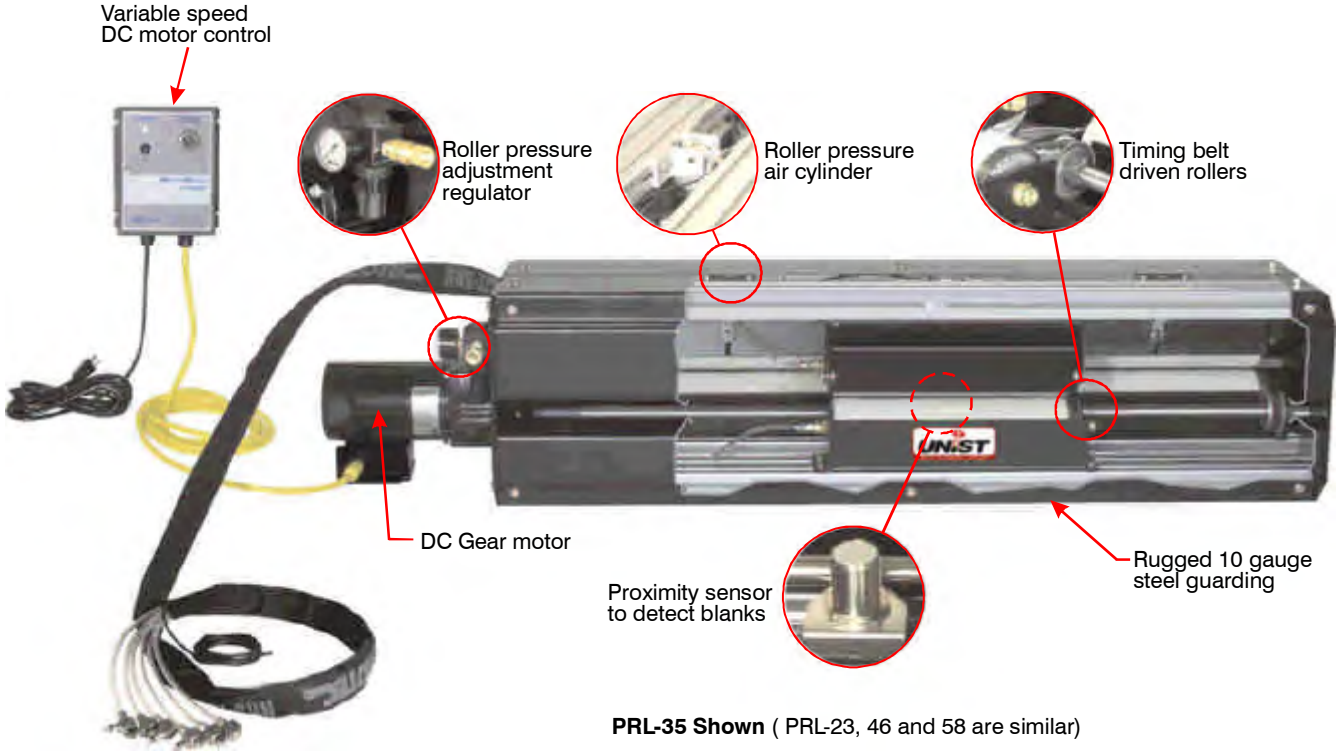
Internally supplied roller design

Applications:

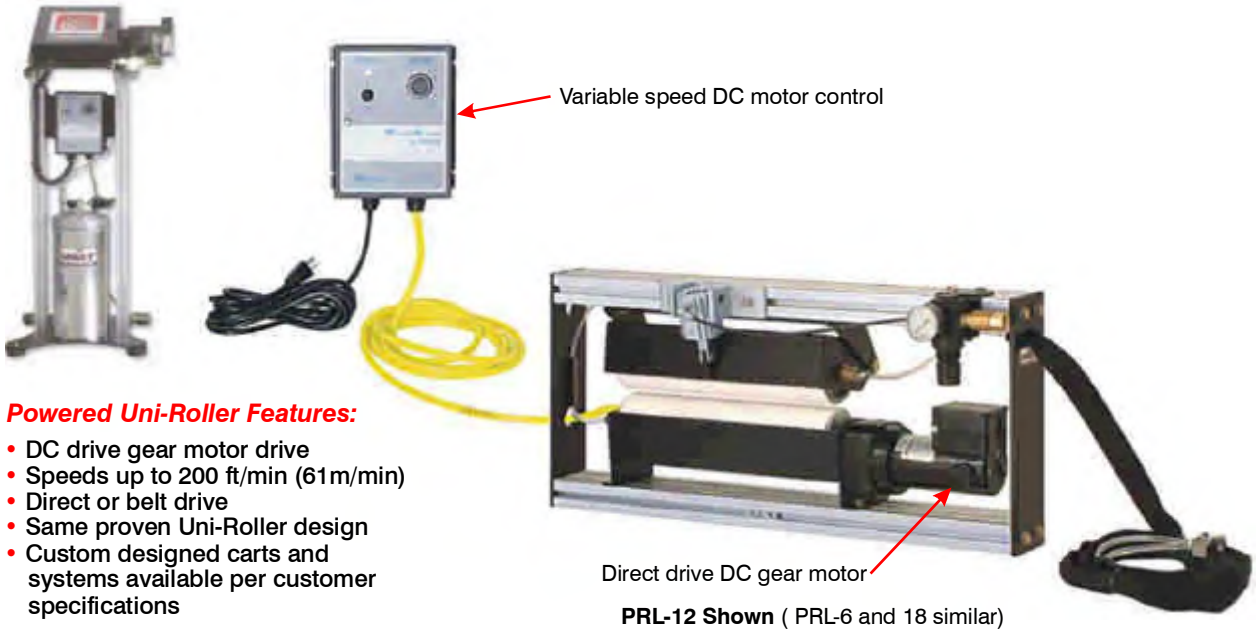
- Punching
- Stamping
- Forming
- Fine Blanking
- Deep Drawing
- Application of Rust Preventatives and Other Protective Coatings

Benefits:

- Reduced Fluid Consumption
- Improved Part Quality
- Increased Production Rates
- Decreased Part Cleaning
- Cleaner Work Areas
- No Fluid Recycling
- Reduced Fluid Management Concerns



PRL-35 Shown (PRL-23, 46 and 58 are similar)



PRL-12 Shown (PRL-6 and 18 similar)

Powered Uni-Roller Features:

- DC drive gear motor drive
- Speeds up to 200 ft/min (61m/min)
- Direct or belt drive
- Same proven Uni-Roller design
- Custom designed carts and systems available per customer specifications

STEP 1 Determine Powered Uni-Roller Part Number

PRL - 6 - PF - P - R

Base System

For Stock Width up to	6"	(152mm)	Use **6**
For Stock Width up to	12"	(305mm)	Use **12**
For Stock Width up to	18"	(457mm)	Use **18**
For Stock Width up to	23.5"	(597mm)	Use **23**
For Stock Width up to	35"	(889mm)	Use **35**
For Stock Width up to	46.5"	(1181mm)	Use **46**
For Stock Width up to	58"	(1473mm)	Use **58**

Roller Cover Material

Polyester Felt Cover (*Standard*)
Extremely durable and compatible with a broad range of fluids.

Use **PF**

Polyurethane Foam Cover (*Optional*)
for use with vanishing oils and with thin stock which is narrow compared to overall roller width. Due to limited fluid compatibility, consult factory prior to selecting this option.

Use **P**

Determine Supply Tubing, Regulator and Motor Location

(as viewed from the feed side of the Uni-Roller)

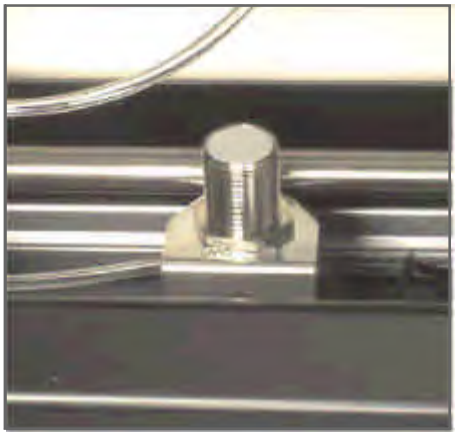
Tubing on the left side (*Optional*)

Use **L**

Tubing on the right side (*Standard*)

Use **R**

STEP 2 Select Options



The **30mm Proximity Sensor** option is used to provide an input signal to a SPR-2000 (or SPR-2000-JR) controller.

ORDER PART NUMBER: **PROX SENSOR-30**

An **AC Variable Frequency Drive** option is available. for automated applications.

PLEASE CONSULT FACTORY

Ordering Example

Powered Uni-Roller Ordering Example

To order a Powered Uni-Roller for use with 20” wide stock with polyester felt roller covers, the tubing and motor on the right hand side and the 30mm proximity sensor option installed, the following should be ordered:

Quantity	Part Number	Component Description
1	PRL-23-PF-P-R	23.5” wide Powered Uni-Roller system
1	PROX SENSOR-30	30 mm Proximity Sensor

Continue to the appropriate sections to complete system

Powered Uni-Roller

SPR-2000

See Page 3

SPR-2000-JR

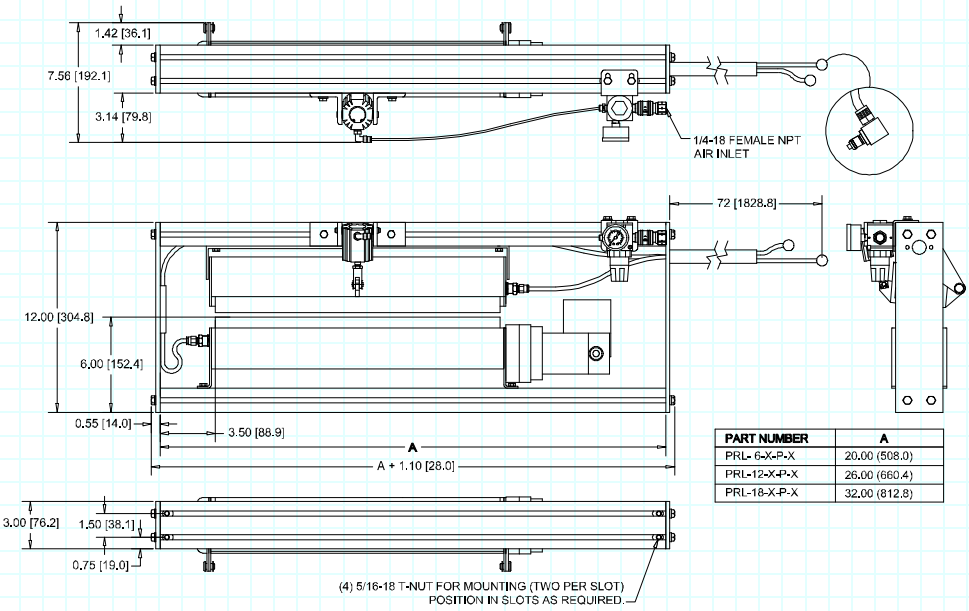
See Page 9

Choose an appropriate programmable fluid controller

Fluid Supply

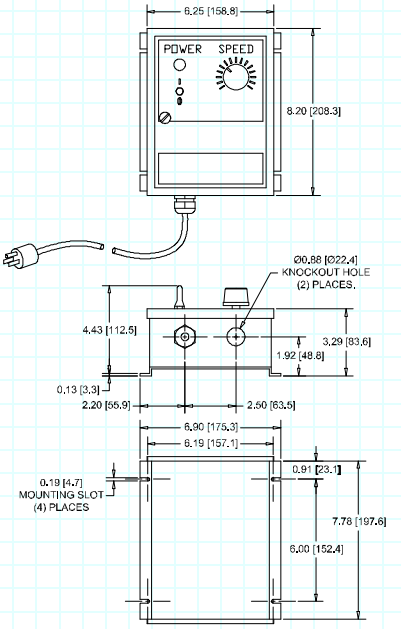
See Page 35

Choose a fluid supply system

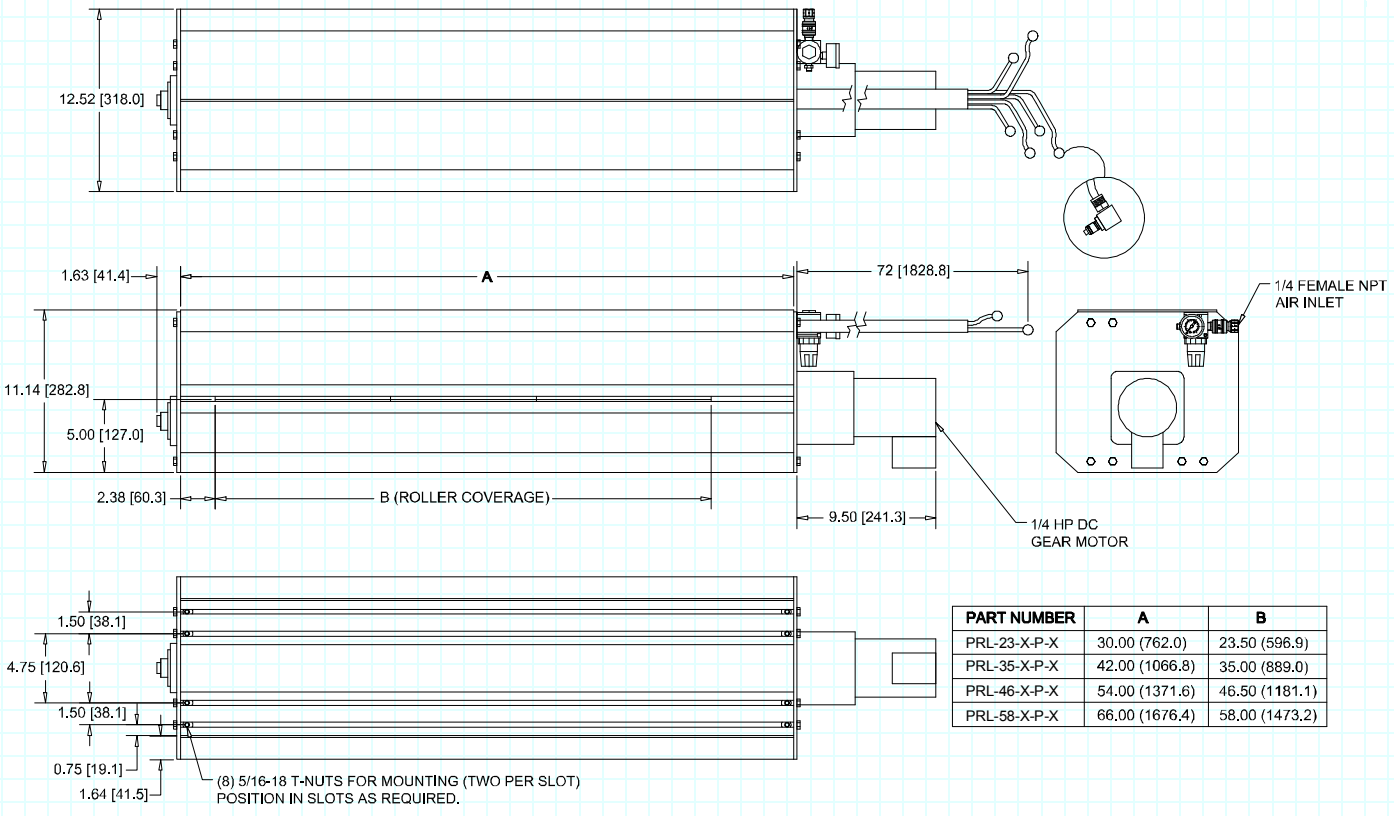


PART NUMBER	A
PRL- 6-X-P-X	20.00 (508.0)
PRL-12-X-P-X	26.00 (660.4)
PRL-18-X-P-X	32.00 (812.8)

Powered Uni-Roller
PRL-6/12/18-X-P-X



DC Motor Speed Control
(For all Powered Uni-Rollers)



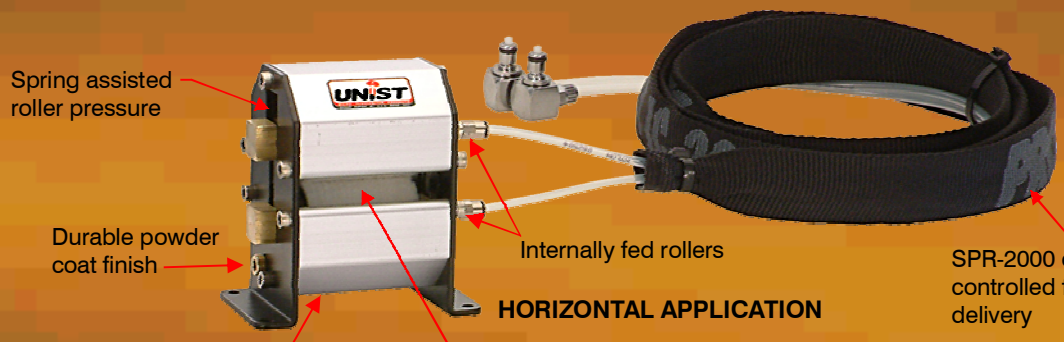
PART NUMBER	A	B
PRL-23-X-P-X	30.00 (762.0)	23.50 (596.9)
PRL-35-X-P-X	42.00 (1066.8)	35.00 (889.0)
PRL-46-X-P-X	54.00 (1371.6)	46.50 (1181.1)
PRL-58-X-P-X	66.00 (1676.4)	58.00 (1473.2)

Powered Uni-Roller
PRL-23/35/46/58-X-P-X

Mini-Roller

Perfect for thin and narrow coil stock

VERTICAL APPLICATION



HORIZONTAL APPLICATION

The Mini-Roller is ideal for thin or narrow stock applications where a Uni-Roller Type S is too large for the press window. When combined with an SPR-2000 or SPR-2000-JR programmable fluid controller, the Mini-Roller will apply the correct amount of fluid for your application and do it consistently day after day.

The design of the internally supplied rollers is the key to applying the fluid. As illustrated above, the Mini-Roller is available in both horizontal and vertical configurations.

For the horizontal configuration, 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.

For the vertical configuration, there is a baffle positioned inside each of the rollers near the top. Every time fluid is injected into the dispenser tube from the fluid controller, it spreads across the baffle where it is then redirected to the outside of the roller. The wicking action of the roller cover material then draws the fluid along the length of the roller.

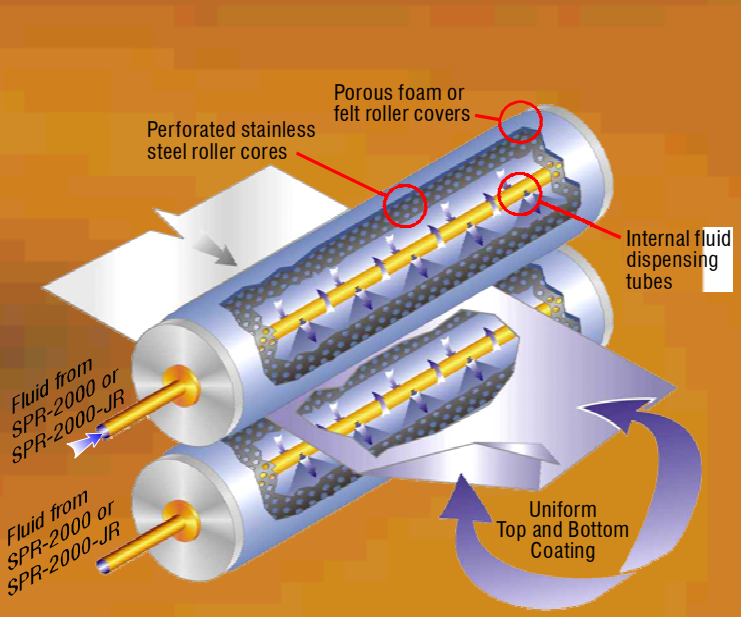
After the lubricant is dispensed inside the rollers, it is transferred to the stock through a durable polyester felt or polyurethane foam roller cover. These materials apply the lubricant smoothly and evenly across both sides of the stock. As the system continues to cycle, additional lubricant is injected to replenish the lubricant applied to the stock.

The advantage of the system is its consistent application of the exact amount of lubricant required for any particular operation. This eliminates the mess and waste associated with spray systems and traditional externally lubricated roller systems. By applying the proper amount of lubricant, there is little cleanup required and no recirculating fluid to treat or dispose. This results in not only a cleaner shop, but also significant savings from decreased fluid waste, decreased tool wear, improved part quality and increased production rates.

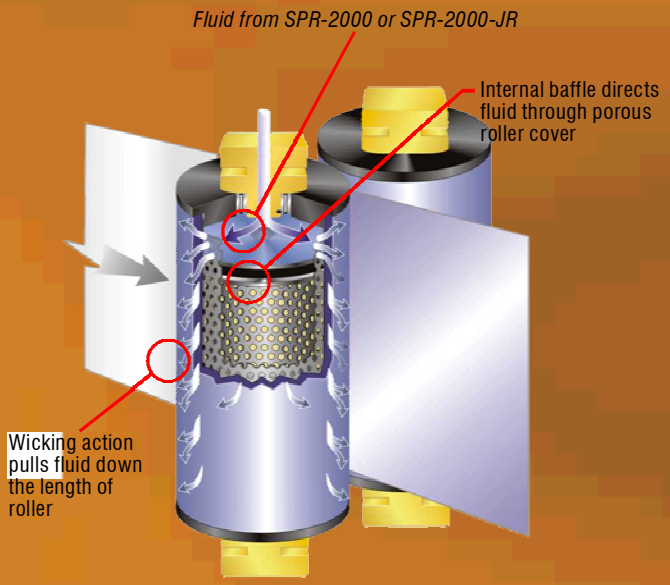
The Mini-Roller systems are available in four sizes ranging from 1" (25 mm) wide to 4" (102 mm) wide.

Many customers have reported savings resulting in a return on investment of less than six months!

Internally supplied roller design



HORIZONTAL APPLICATION



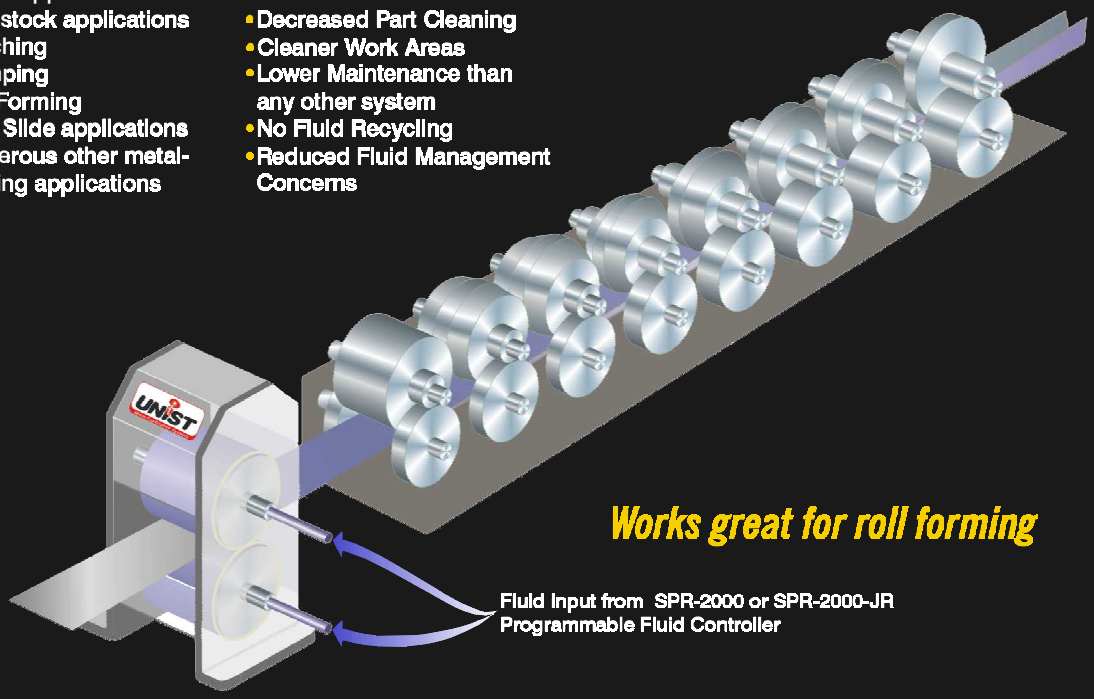
VERTICAL APPLICATION

Applications:

- Small press windows
- High speed, short feed length applications
- Thin stock applications
- Punching
- Stamping
- Roll Forming
- Four Slide applications
- Numerous other metal-forming applications

Benefits:

- Reduced Fluid Consumption
- Improved Part Quality
- Increased Production Rates
- Decreased Part Cleaning
- Cleaner Work Areas
- Lower Maintenance than any other system
- No Fluid Recycling
- Reduced Fluid Management Concerns



STEP 1 Determine Mini-Roller Part Number

MRL -1 - **PF**

Base System

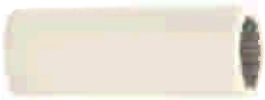
HORIZONTAL SYSTEMS

For Stock Width up to 1” (25mm)	Use **MRL-1**
For Stock Width up to 2" (51mm)	Use **MRL-2**
For Stock Width up to 3” (76mm)	Use **MRL-3**
For Stock Width up to 4” (102mm)	Use **MRL-4**

VERTICAL SYSTEMS

For Stock Width up to 1” (25mm)	Use **VMRL-1**
For Stock Width up to 2” (51mm)	Use **VMRL-2**
For Stock Width up to 3” (76mm)	Use **VMRL-3**
For Stock Width up to 4” (102mm)	Use **VMRL-4**

Roller Cover Material



Polyester Felt Cover (*Standard)*
Extremely durable and compatible with a broad range of fluids.

Use **PF**

Polyurethane Foam Cover (*Optional*)
For use with vanishing oils and with thin stock which is narrow compared to overall roller width. Due to limited fluid compatibility, consult factory prior to selecting this option.

Use **P**

STEP 2 Select Option

The **Rotation Sensor** option is used to provide an input to an SPR-2000 or SPR-2000-JR controller based on roller rotation. Select when an intermittent input signal is not available.

ORDER PART NUMBER: **305-3-081-NO**
Note: Order one per Mini-Roller system

MRL-1
For stock width up to **1**" (25mm)

MRL-2
For stock width up to **2**" (51mm)

MRL-3
For stock width up to **3**" (76mm**)**

MRL-4
For stock width up to **4**" (102mm)

VMRL-1
For stock width up to **1**" (25mm)

VMRL-2
For stock width up to **2**" (51mm)

VMRL-3
For stock width up to **3**" (76mm)

VMRL-4
For stock width up to **4**" (102mm)

Ordering Example

Mini-Roller Ordering Example

To order a horizontal Mini-Roller for use with 3" wide stock with polyester felt roller covers and the Rotation Sensor option installed, order the following:

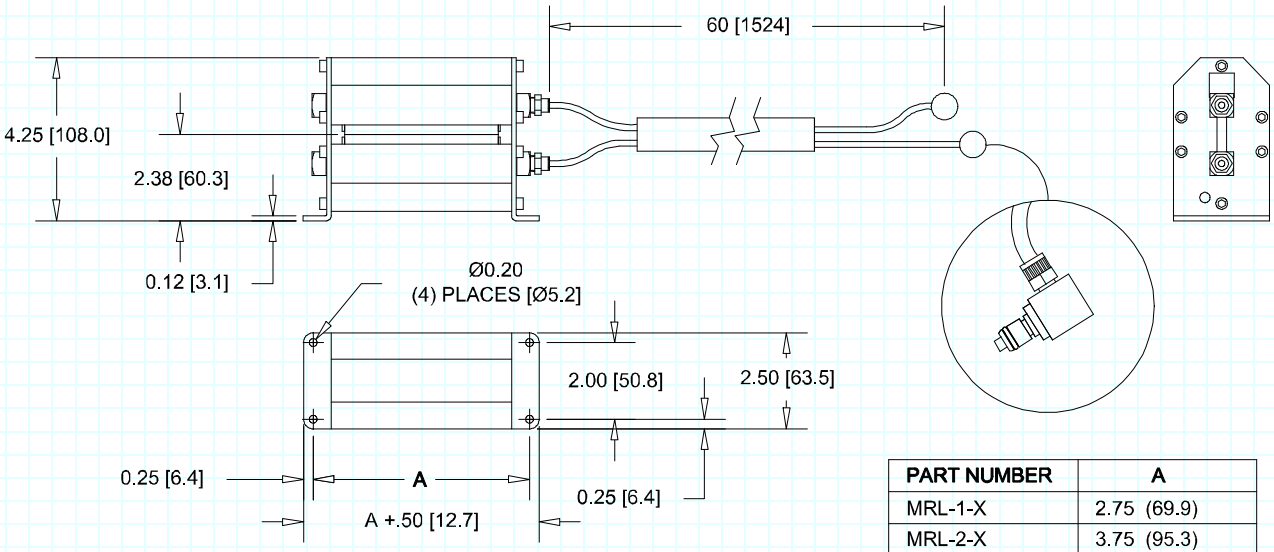
Quantity	Part Number	Component Description
1	MRL-3-PF	3" wide Mini-Roller system
1	305-3-0810-NO	Rotation Sensor

Continue to the appropriate sections to complete system

Mini-Roller

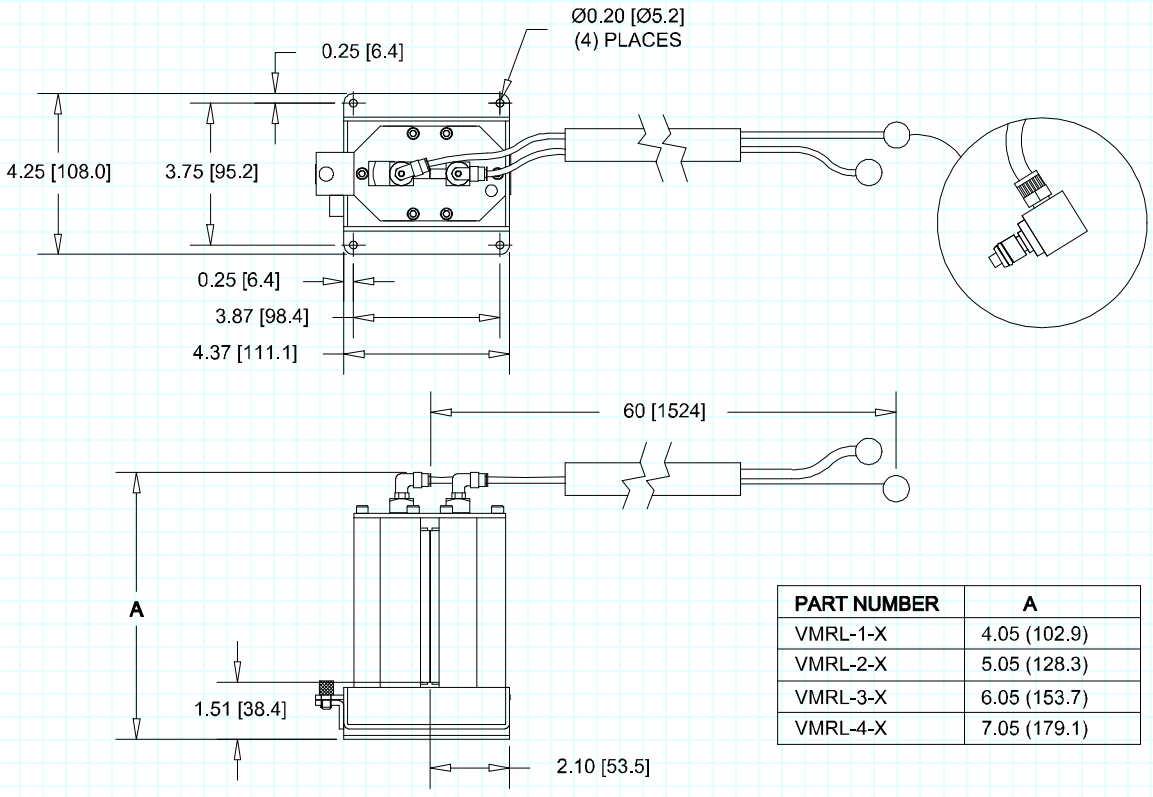
Choose an appropriate programmable fluid controller

Choose a fluid supply system



PART NUMBER	A
MRL-1-X	2.75 (69.9)
MRL-2-X	3.75 (95.3)
MRL-3-X	4.75 (120.7)
MRL-4-X	5.75 (146.1)

Horizontal Mini-Roller
MRL-1/2/3/4-X



PART NUMBER	A
VMRL-1-X	4.05 (102.9)
VMRL-2-X	5.05 (128.3)
VMRL-3-X	6.05 (153.7)
VMRL-4-X	7.05 (179.1)

Vertical Mini-Roller
VMRL-1/2/3/4-X

Worldwide 616.949.0853 - USA and Canada 800.253.5462

Fluid Supply Systems

An essential component

Fluid Supply Systems

A consistent supply of pressurized fluid is a key component of any system that is controlled by an SPR-2000 or SPR-2000-JR programmable fluid controller. To meet this need, UNIST has assembled a broad range of options suitable for most any application.

These include:

- **Pressurized tanks from 3 to 30 gallons (11-113 liters)**
- **Air-operated diaphragm pump**
- **Fluid pressure regulator for connection to a customer's existing pressurized supply of fluid**

The **air operated diaphragm pump** is available to supply pressurized fluid from a non-pressurized tote or drum. The pump includes an on/off valve, 0-60 psi regulator and fluid by-pass loop to prevent stalling.

ORDER PART NUMBER: **SPR-2000-ARPUMP**

The **3 gallon (11 liter) stainless steel pressure tank** comes equipped with a 0-40 psi regulator and a low level switch.

ORDER PART NUMBER: **SPR-2000-3GAL**

The **6 gallon (22 liter) ASME rated pressure tank** comes equipped with a 0-100 psi regulator, low level switch and sight gauge.

ORDER PART NUMBER: **SPR-2000-6GAL**

The **15 gallon (56 liter) ASME rated pressure tank** comes equipped with a 0-100 psi regulator, low level switch and sight gauge.

ORDER PART NUMBER: **SPR-2000-15GAL**

Note: Tanks shown mounted to optional stand

The **25 micron filter assembly** can be used with any SPR-2000 based system for superior fluid filtering.

ORDER PART NUMBER: **CP-500-20SYN-P-I**

The **sump tube** can be used in conjunction with the SPR-2000-ARPUMP when drawing from a 55 gallon drum.

ORDER PART NUMBER: **55D**

The **30 gallon (113 liter) ASME rated pressure tank** comes equipped with a 0-100 psi regulator, low level switch and sight gauge.

ORDER PART NUMBER: **SPR-2000-30GAL**

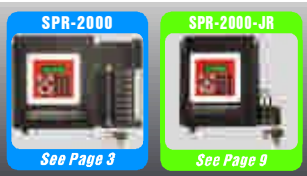
The **fluid regulator assembly** can be used to reduce the pressure of an existing fluid supply system. The assembly allows for the fluid pressure to be set anywhere from 3-50 psi and includes a 0-60 psi pressure gauge.

ORDER PART NUMBER: **263AB**

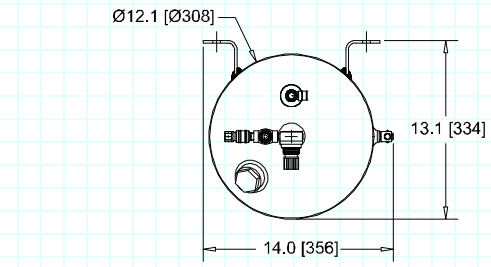
The **auto refill fluid supply system** incorporates a 10 gallon (38 liter) ASME rated stainles steel pressure tank with 0-60 psi precision regulator and integral high & low level switches. The system also includes PLC controls and an electric pump to automatically refill the tank, which eliminates down time. This system provides superior performance when drawing fluid from a tote or drum.

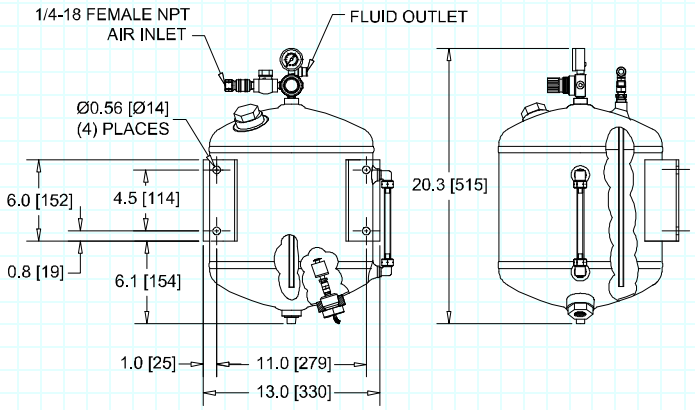
ORDER PART NUMBER: **10SS-110 (110 VAC)**
10SS-220 (220 VAC)

Continue to the appropriate sections to complete system

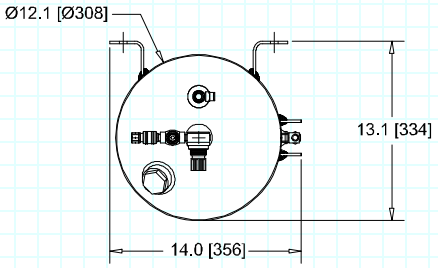


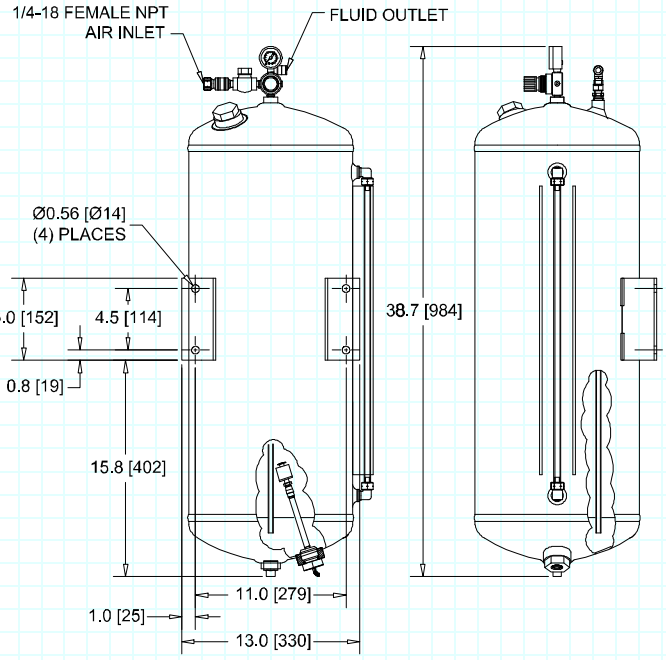
Choose an appropriate programmable fluid controller



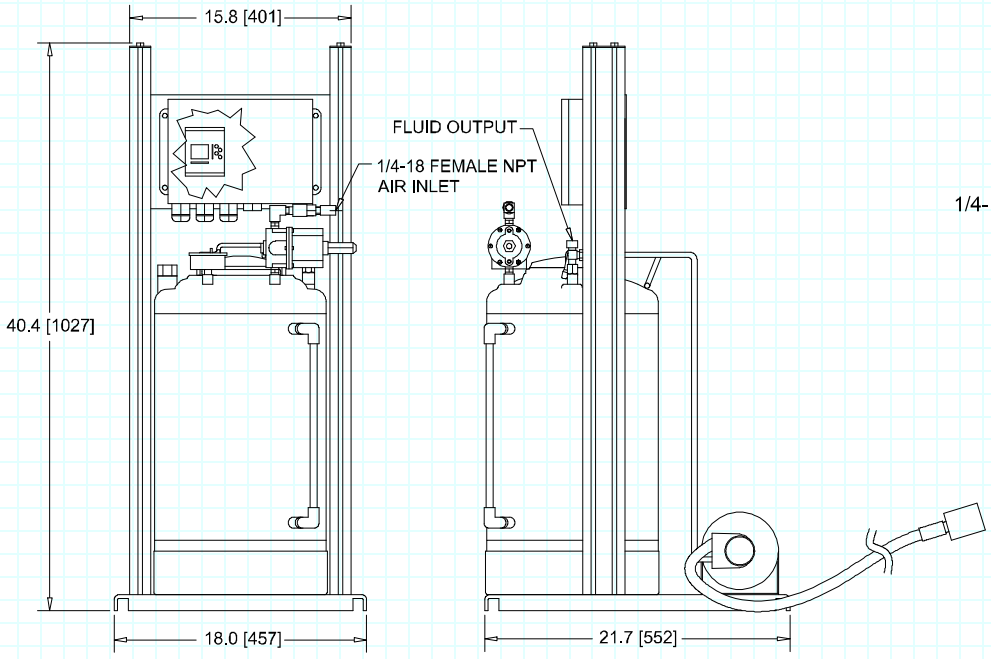


6 Gallon Tank
SPR-2000-6GAL

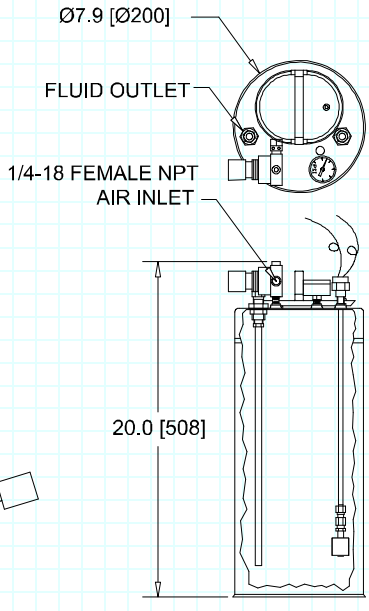




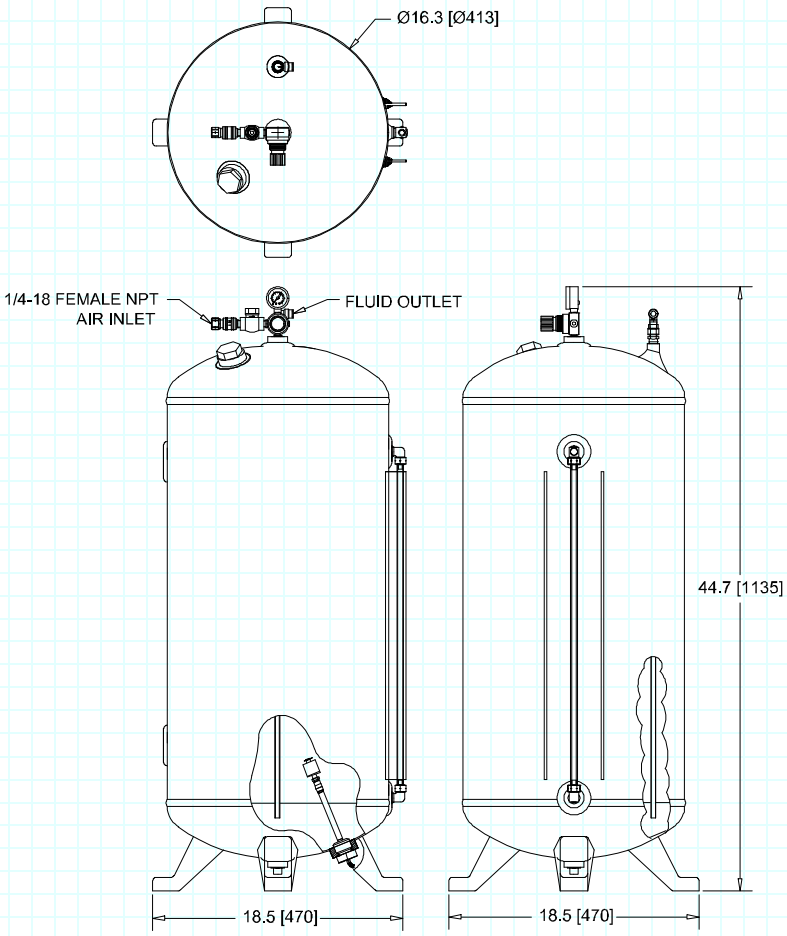
15 Gallon Tank
SPR-2000-15GAL



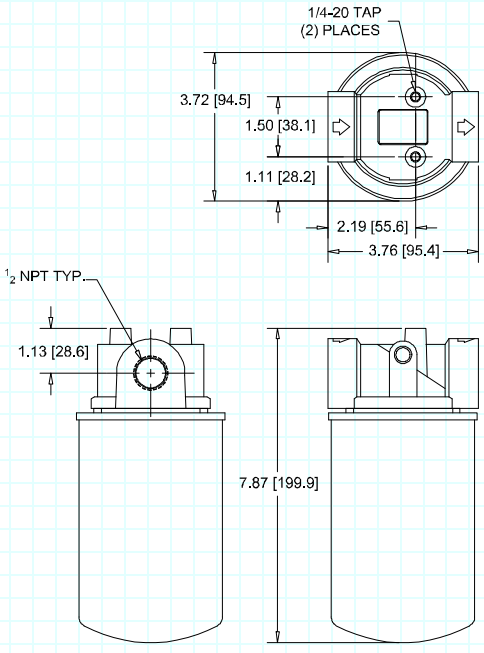
Auto Refill Fluid Supply System
10SS-110/220



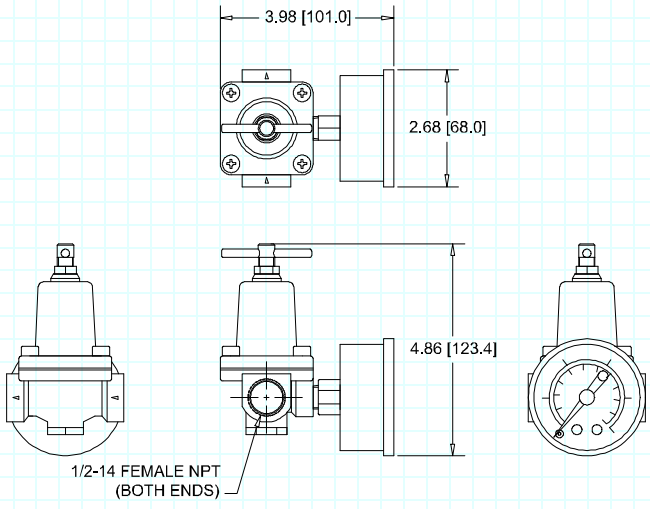
3 Gallon Stainless Tank
SPR-2000-3GAL



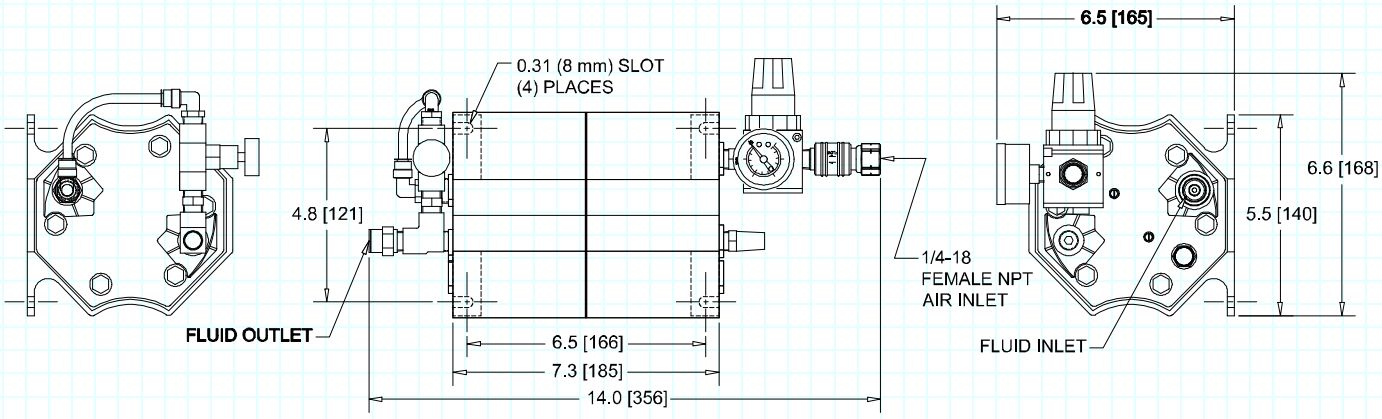
30 Gallon Tank
SPR-2000-30GAL



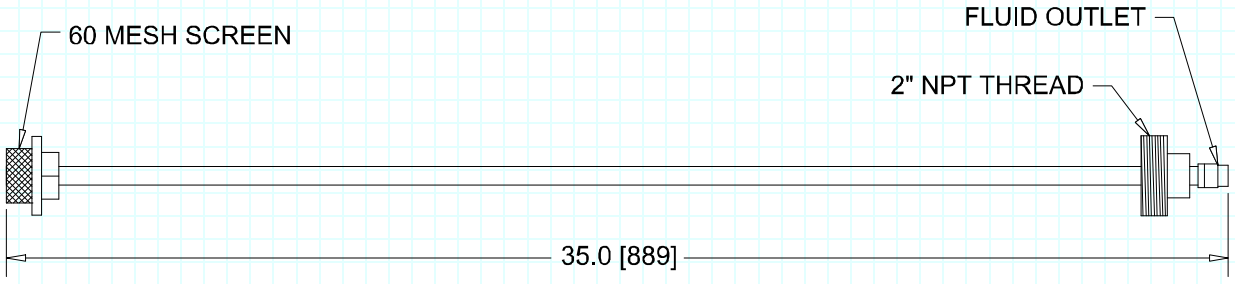
25 Micron Filter Assembly
CP-500-20SYN-P-I



Fluid Regulator Assembly
263AB



Air Operated Diaphragm Pump
SPR-2000-ARPUMP

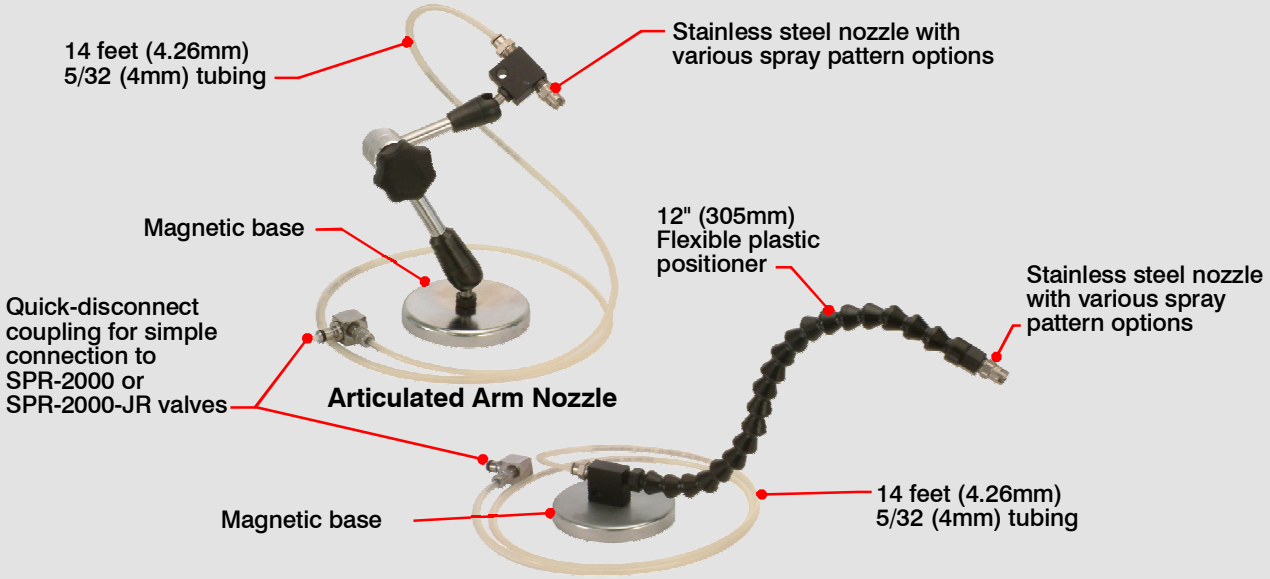


Sump Tube
55D

Worldwide 616.949.0853 - USA and Canada 800.253.5462

Spray Nozzles

Ideal for additional fluid in tough applications



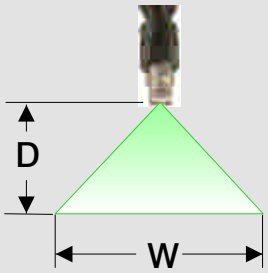
Although UNIST highly recommends the use of roller systems as the primary means of applying fluids, sometimes it is necessary to apply additional fluid for certain applications. To fill this need, a complete line of spray nozzles is available which connect directly to the valves on a SPR-2000 or SPR-2000-JR programmable fluid controller.

Because these nozzles rely on the velocity of the fluid to create the spray pattern, their proper operation requires a fluid which is close to the viscosity of water. As a result, they work extremely well with water based solutions and emulsions, but are generally not recommended for use with oils or viscous synthetic fluids. If you have a need to spray a more viscous fluid, please contact the factory for a solution tailored to your needs.

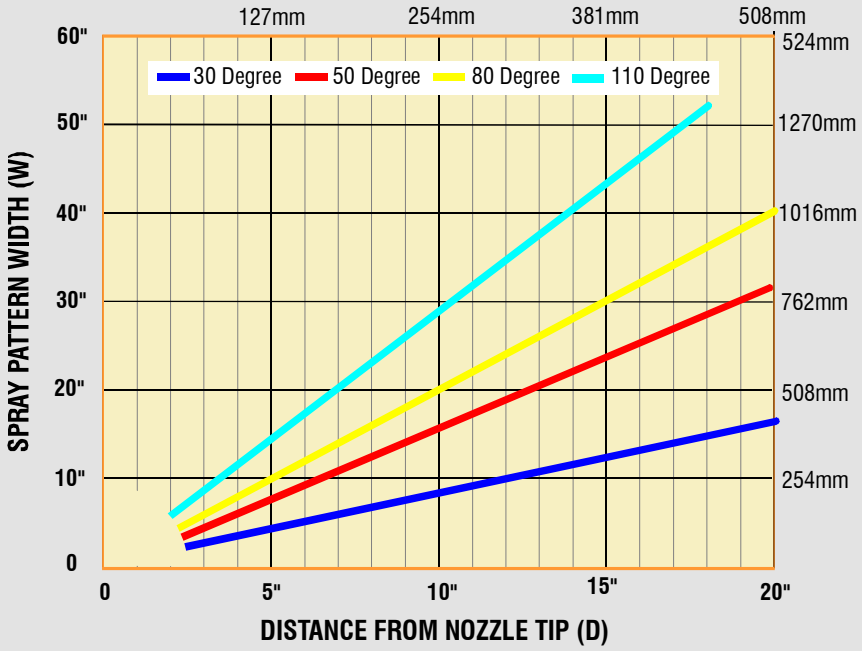
The nozzle assemblies are available in two basic configurations. The flexible plastic version uses a 12" (305 mm) long section of Loc-Line for positioning the spray tip. The articulated arm version provides more rigid positioning which can easily be adjusted and locked in place with one knob. Both nozzle configurations include stainless steel nozzle tips, magnetic bases for easy mounting, and quick-disconnect couplings which plug directly into a valve on an SPR-2000 or SPR-2000-JR programmable fluid controller.

Spray Angle	Orifice Size	Flexible Plastic Nozzle Part Number	Articulated Arm Nozzle Part Number
0 Degree	0.026” (0.66 mm)	4021-F000026S	4022-F000026S
0 Degree	0.031” (0.79 mm)	4021-F000031S	4022-F000031S
0 Degree	0.036” (0.91 mm)	4021-F000036S	4022-F000036S
30 Degree	0.026” (0.66 mm)	4021-F030026S	4022-F030026S
30 Degree	0.031” (0.79 mm)	4021-F030031S	4022-F030031S
30 Degree	0.036” (0.91 mm)	4021-F030036S	4022-F030036S
50 Degree	0.026” (0.66 mm)	4021-F050026S	4022-F050026S
50 Degree	0.031” (0.79 mm)	4021-F050031S	4022-F050031S
50 Degree	0.036” (0.91 mm)	4021-F050036S	4022-F050036S
80 Degree	0.026” (0.66 mm)	4021-F080026S	4022-F080026S
80 Degree	0.031” (0.79 mm)	4021-F080031S	4022-F080031S
80 Degree	0.036” (0.91 mm)	4021-F080036S	4022-F080036S
110 Degree	0.026” (0.66 mm)	4021-F110026S	4022-F110026S
110 Degree	0.031” (0.79 mm)	4021-F110031S	4022-F110031S
110 Degree	0.036” (0.91 mm)	4021-F110036S	4022-F110036S

SPRAY NOZZLE COVERAGE



SPRAY WIDTH VERSUS DISTANCE FROM NOZZLE



FLOW RATE (Based on water)	
ORIFICE SIZE	FLOW RATE RANGE
.026 Orifice Nozzle	2.21 cc/sec @ 5 PSI to 10.1 cc/sec @ 100psi
.031 Orifice Nozzle	3.31 cc/sec @ 5 PSI to 15.1 cc/sec @ 100psi
.036 Orifice Nozzle	4.42 cc/sec @ 5 PSI to 20.2 cc/sec @ 100psi

Continue to the appropriate sections to complete system

Spray Nozzle

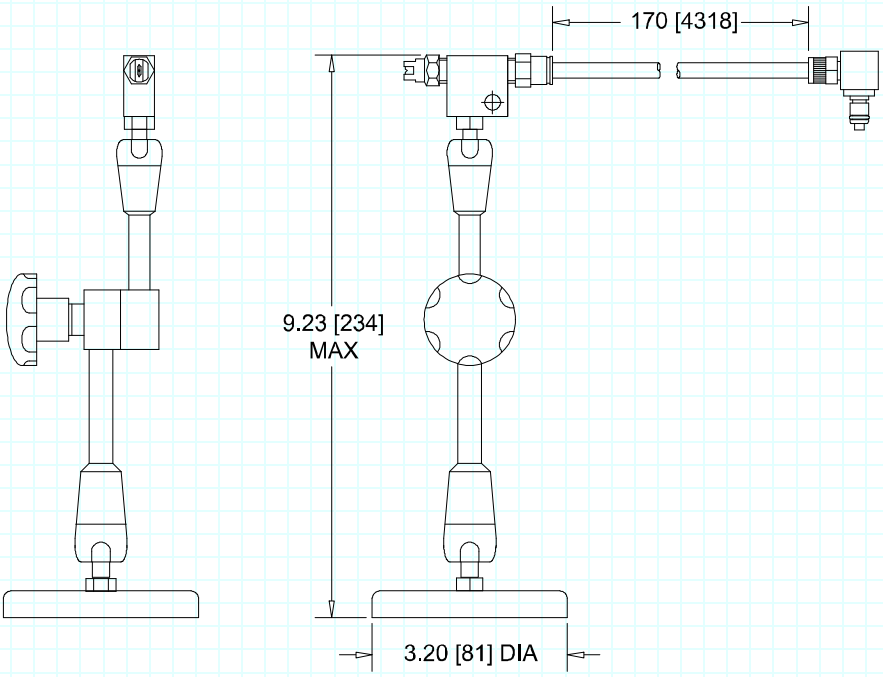
See Page 3

See Page 9

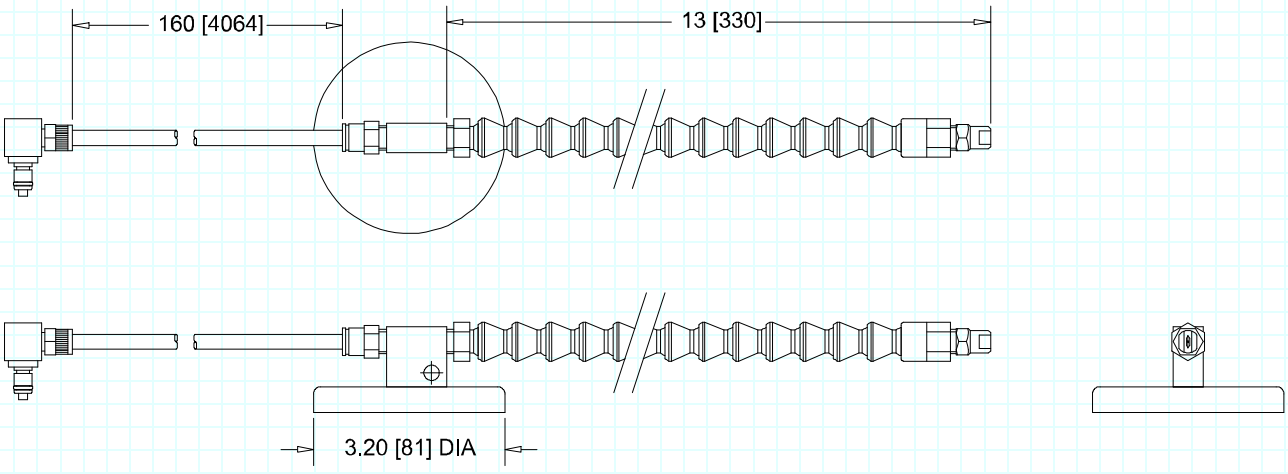
Choose an appropriate programmable fluid controller

See Page 35

Choose a fluid supply system

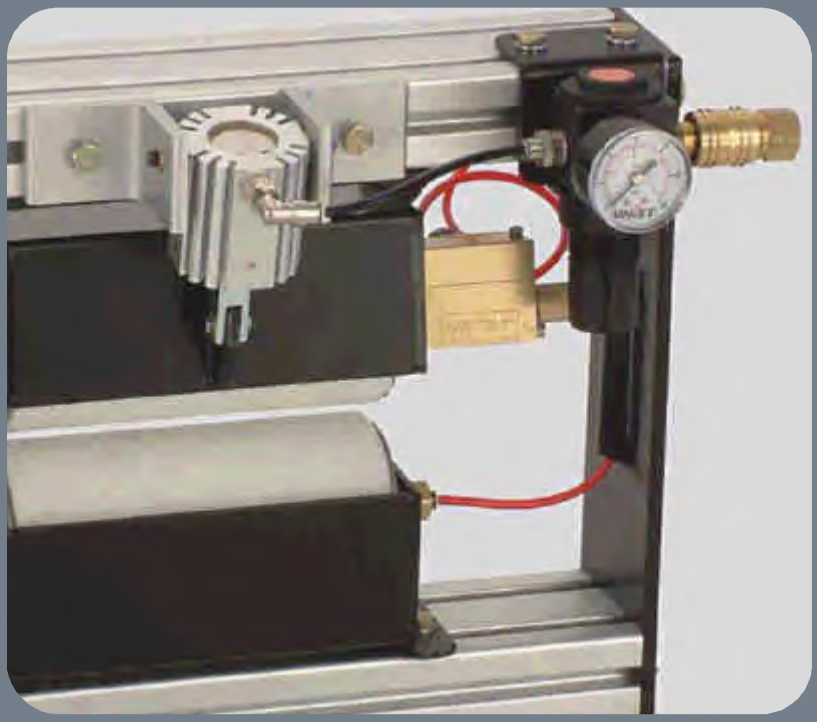


Articulated Arm Nozzle
4022-FXXXXXXS



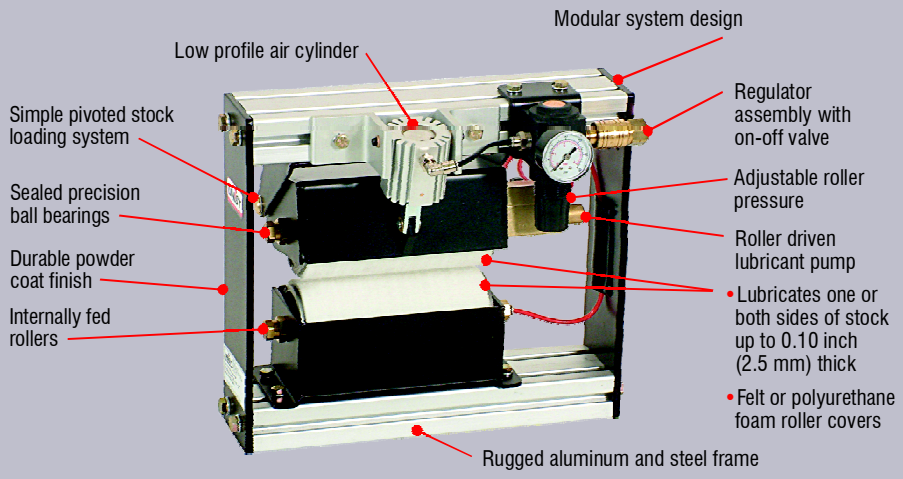
Flexible Plastic Nozzle
4021-FXXXXXXS

Uni-Roller Type C



STANDARD FEATURES

A great choice for slower speed applications



The patented Uni-Roller Type C lubricators were introduced in 1993 and have proven to be great performers over the years. They are the perfect solution for accurate roller application of fluids in operations with slower feed rates or where a less costly alternative to the Uni-Roller Type S system is desired. For operations with material widths of 2.0 to 23.5 inches (51 to 597 mm) up to 0.10 inches (2.50 mm) thick, with speeds less than 100 feet/minute (30.5m/minute), the Uni-Roller type C is an accurate, yet cost-effective fluid application system.

At the heart of the system is a positive displacement lubricant pump that precisely dispenses the lubricant to the rollers. The output of this pump is fully adjustable so it can be tailored to any operation. This pump is operated once per roller revolution by a cam on the end of the roller. As a result of this configuration, the system always supplies the proper amount of lubricant regardless of the material feed rate. Because the roller drives the pump, the output is directly proportional to the feed rate of the stock without requiring the added expense of electronic controls. No other system available offers such a precise yet simple lubricant supply system.

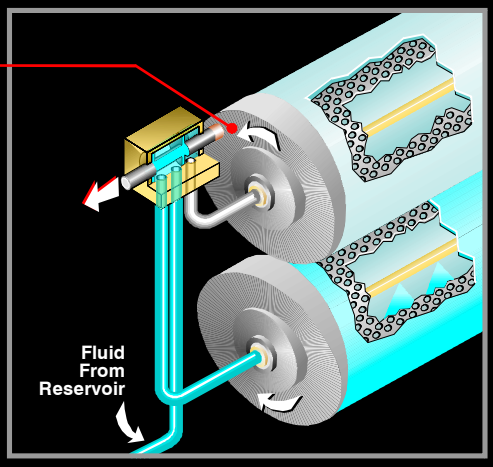
Like all Uni-Roller systems, the lubricant is fed through the inside of the rollers. There is a special dispenser tube within the roller that applies the lubricant evenly across the inside of the roller. The lubricant is transferred to the stock through durable polyurethane foam or polyester felt roller covers. This material applies the lubricant smoothly and evenly across the surface of the stock.

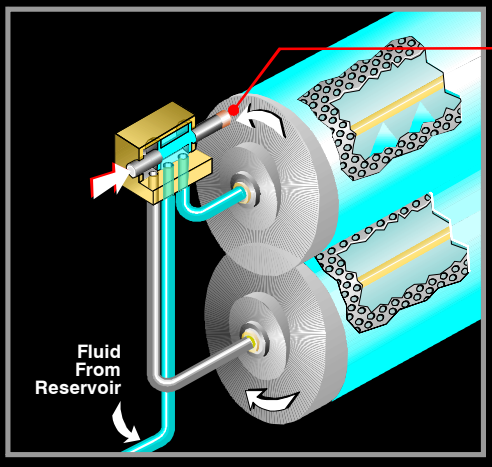
The advantage of this system is that it supplies the exact amount of lubricant required for any particular operation. This eliminates the mess and waste associated with in-die spray systems and externally lubricated roller systems. By applying the proper amount of lubricant, there is little cleanup required and no recirculating fluids to treat or dispose. This means a cleaner shop and lower overhead costs, not to mention the savings due to reduced tool wear, improved part quality, increased production rates and decreased fluid waste.

Uni-Roller Type C systems are available in two different versions. While the most popular design uses air cylinders to control the roller pressure, there is also a more compact version with manual spring latches for limited space applications. Each of the systems for stock up to 12 inches (305 mm) wide utilizes a single pump to supply both the upper and lower rollers. The RL-18, for material up to 18 inches (457 mm) wide, requires two pumps to supply adequate fluid volume for the wider roller. The RL-23, which will coat material up to 23.5 inches (597 mm) wide, utilizes two 12-inch (305 mm) wide rollers that are staggered and overlapped to provide wider coverage. In this case, each roller set is equipped with a pump.

While the Uni-Roller Type C is an excellent solution for slower line speeds and more simple operations, if your application would benefit from a programmable system capable of higher speeds with a broad range of options, check out the Uni-Roller type S systems and the SPR-2000 and SPR-2000-JR programmable fluid controllers.

As the piston of the pump is depressed by the rotation of the cam, lubricant is pumped inside the lower roller.





As the piston of the pump is released by the rotation of the cam, lubricant is pumped inside the upper roller.

RL-3-X-B-S
Spring Latch Roller Pressure
STOCK WIDTH TO 3 INCHES (76mm)

RL-6-X-B-S
Spring Latch Roller Pressure
STOCK WIDTH TO 6 INCHES (152mm)

RL-12-X-B-S
Spring Latch Roller Pressure
STOCK WIDTH TO 12 INCHES (305mm)

RL-3-X-B-P
Pneumatic Roller Pressure
STOCK WIDTH TO 3 INCHES (76mm)

RL-6-X-B-P
Pneumatic Roller Pressure
STOCK WIDTH TO 6 INCHES (152mm)

RL-12-X-B-P
Pneumatic Roller Pressure
STOCK WIDTH TO 12 INCHES (305mm)

RL-18-X-B-P
Pneumatic Roller Pressure
STOCK WIDTH TO 18 INCHES (457mm)

RL-23-X-B-P
Pneumatic Roller Pressure
STOCK WIDTH TO 23.5 INCHES (597mm)

Applications:

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

Benefits:

- Reduced Fluid Consumption
- Improved Part Quality
- Increased Production Rates
- Decreased Part Cleaning
- Cleaner Work Areas
- No Fluid Recycling
- Reduced Fluid Management Concerns

STEP 1 Determine Uni-Roller Type C Part Number

RL - 3 - PF - B - P

Base System

For Stock Width up to	3”	(76mm)	Use **3**
For Stock Width up to	6"	(152mm)	Use **6**
For Stock Width up to	12”	(305mm)	Use **12**
For Stock Width up to	18”	(457mm)	Use **18**
For Stock Width up to	23.5”	(597mm)	Use **23**

Roller Cover Material

Polyester Felt Cover (*Standard)*
Extremely durable and compatible with a broad range of fluids.

Use **PF**

Polyurethane Foam Cover (*Optional*)
for use with vanishing oils and with thin stock which is narrow compared to overall roller width. Due to limited fluid compatibility, consult factory prior to selecting this option.

Use **P**

Determine Roller Pressure Method

Pneumatic Cylinder (*Standard)*
Preferred method for maintaining pressure on stock and opening the rollers to load a new coil.

Use **P**

Spring Latch (*Optional)*
Optional Method for limited space.
Available for RL - 3, 6 and 12 only

Use **S**

STEP 2 Select Options

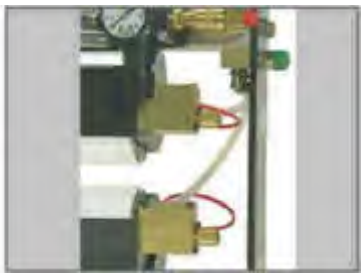
The **Stock Guide** option facilitates easy loading of the coil into a Uni-Roller system. Not available on Spring Latch units.

ORDER PART NUMBER: **1392**
(Includes 1 upper and 1 lower guide)

Order quantity = Number of roller sets + 1
Example: For RL23 Order (3)
Part Number 1392

The **Double Cylinder** option allows the rollers to float with the stock. Not available on Spring Latch units.

ORDER PART NUMBER: **1705-KIT-I**
Order quantity = Number of roller sets



The **Double Pump** option is recommended for larger fluid volume needs. Not available on RL-18 or Spring Latch units.

ORDER PART NUMBER: **2000-I**
Order quantity = Number of roller sets

6 Quart Polyethylene Reservoir

ORDER PART NUMBER:
6Q RESERVOIR

3 Gallon Stainless Steel Reservoir

ORDER PART NUMBER:
3G RESERVOIR (for RL-3,6,12)
3G-18 RESERVOIR (for RL-18 or 23)

Sump Tube for 55 Gallon Drum

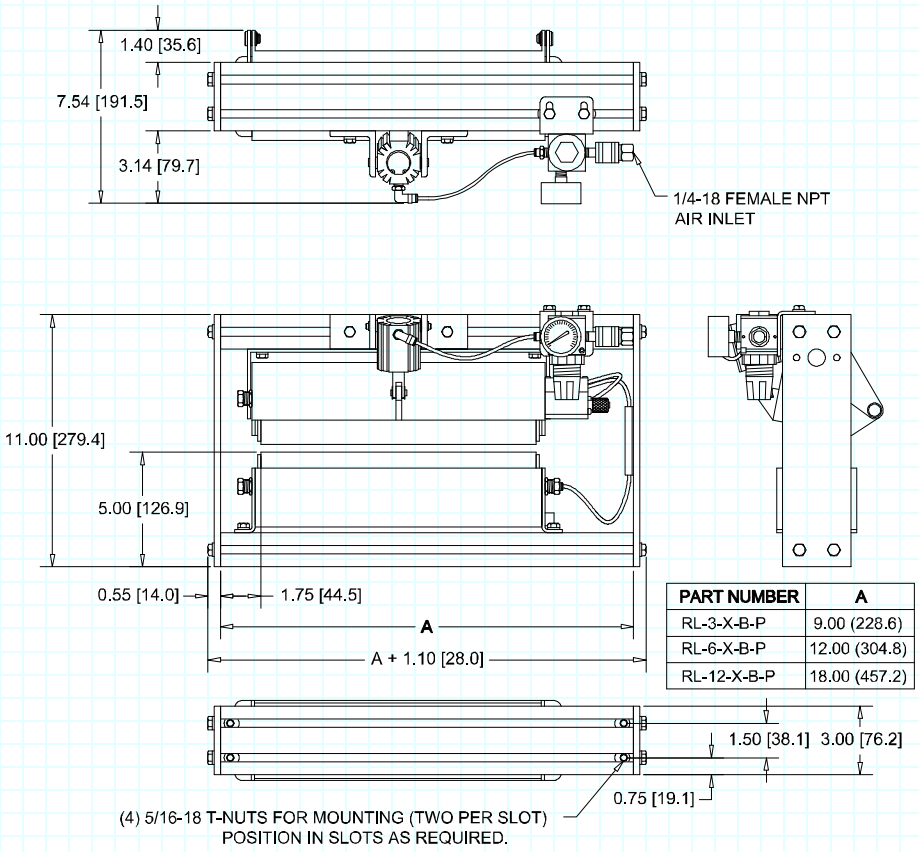
ORDER PART NUMBER: **55D**

Ordering Example

Uni-Roller Type C Ordering Example:

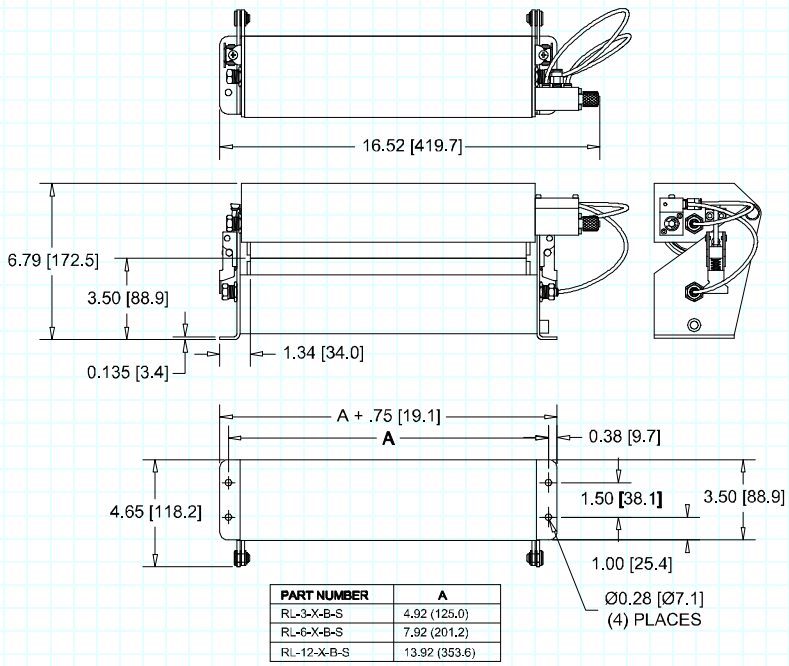
To order a Uni-Roller Type C for use with 20” wide stock, polyester felt roller covers, the stock guide option and a sump tube for a 55 gallon drum, the following should be ordered:

Quantity	Part Number	Component Description
1	RL-23-PF-B-P	23.5” wide Uni-Roller system
3	1392	Stock Guide option
1	55D	Sump tube



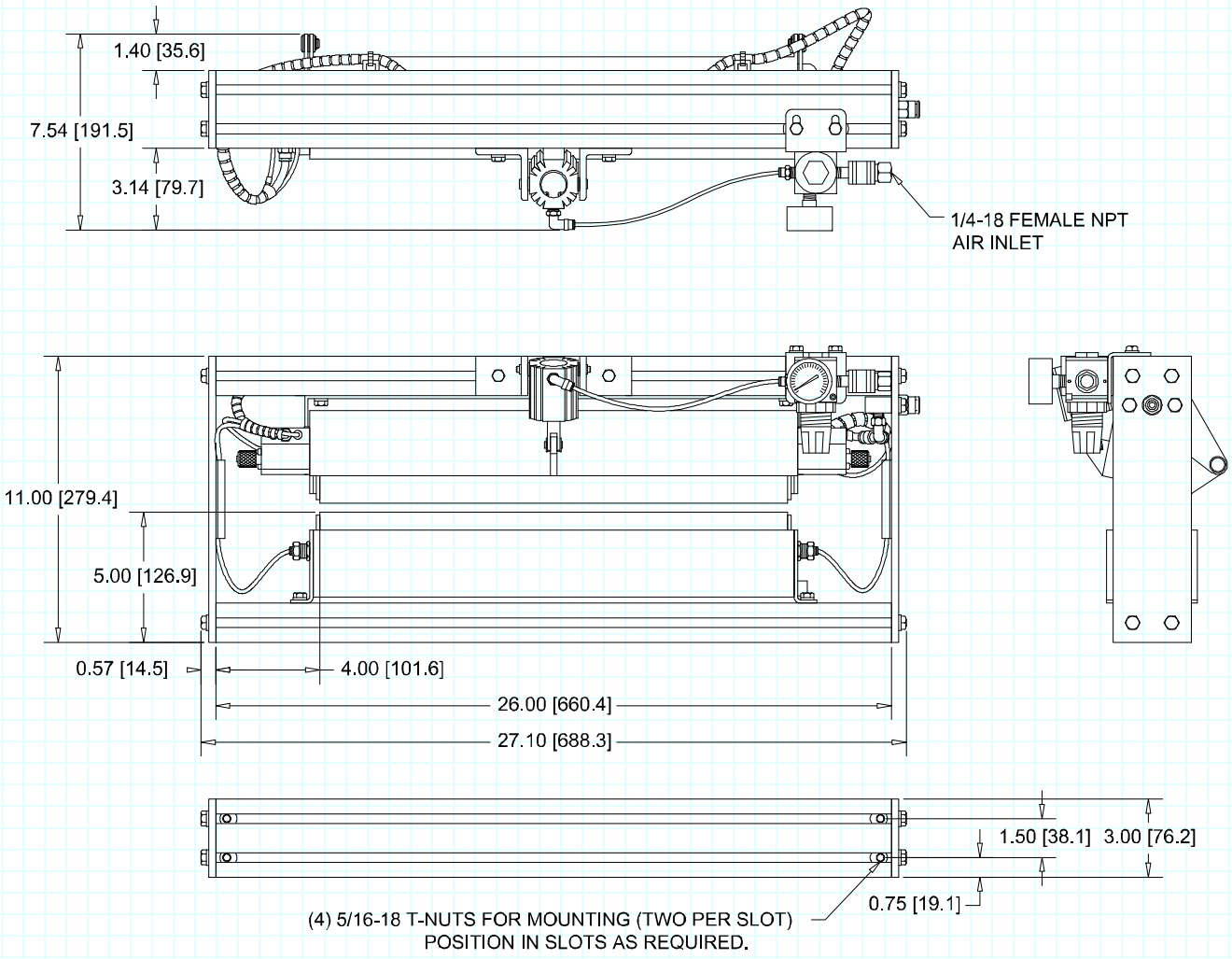
PART NUMBER	A
RL-3-X-B-P	9.00 (228.6)
RL-6-X-B-P	12.00 (304.8)
RL-12-X-B-P	18.00 (457.2)

Uni-Roller Type C
RL-3/6/12-X-B-P

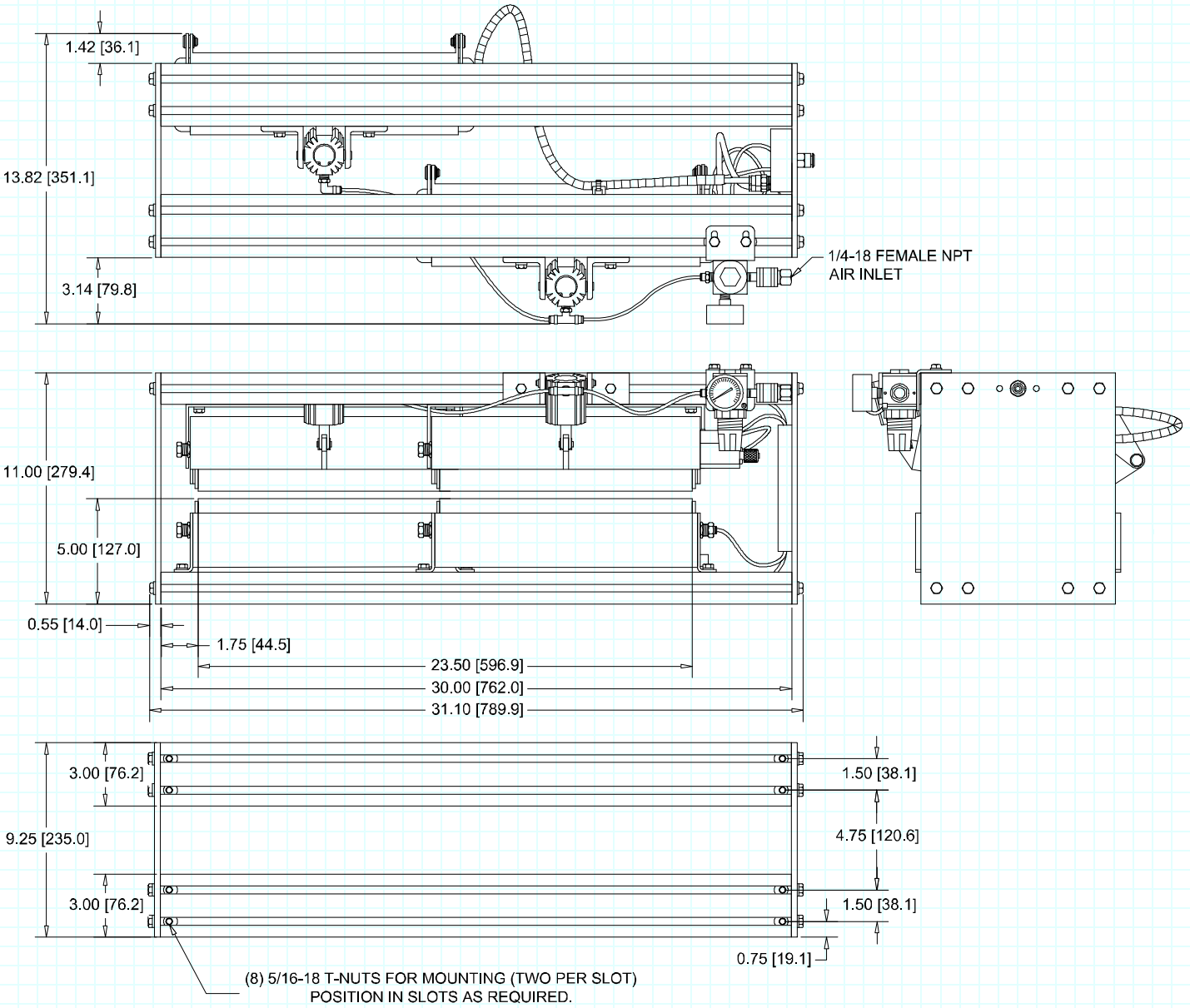


PART NUMBER	A
RL-3-X-B-S	4.92 (125.0)
RL-6-X-B-S	7.92 (201.2)
RL-12-X-B-S	13.92 (353.6)

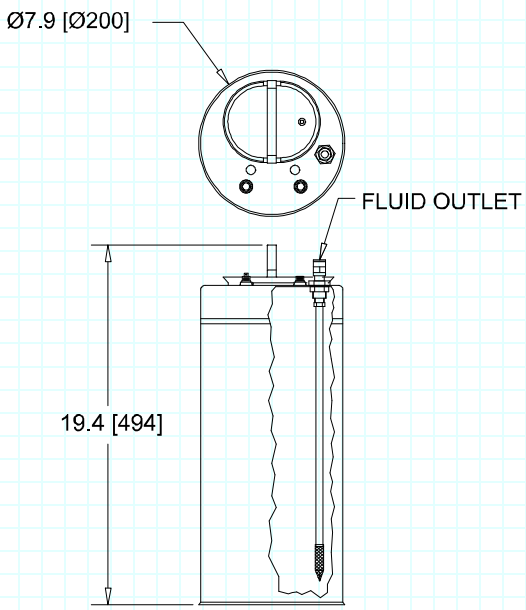
Uni-Roller Type C
RL-3/6/12-X-B-S



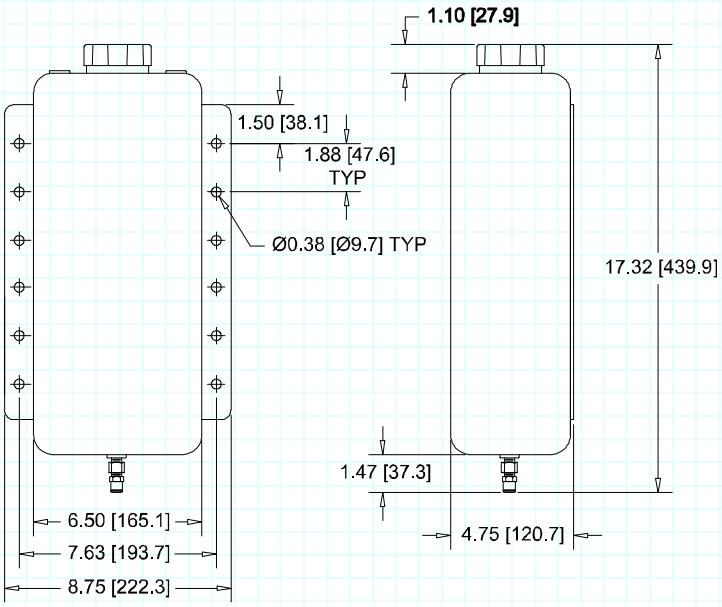
Uni-Roller Type C
RL-18-X-B-P



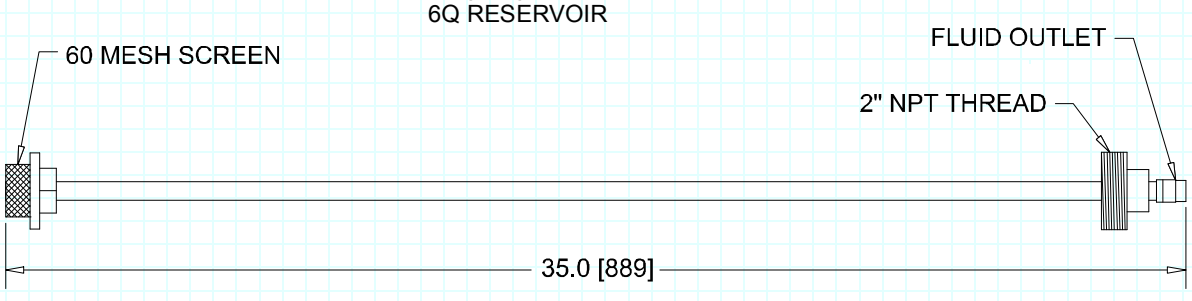
Uni-Roller Type C
RL-23-X-B-P



3 Gallon Stainless Reservoir
3G RESERVOIR or 3G-18 RESERVOIR

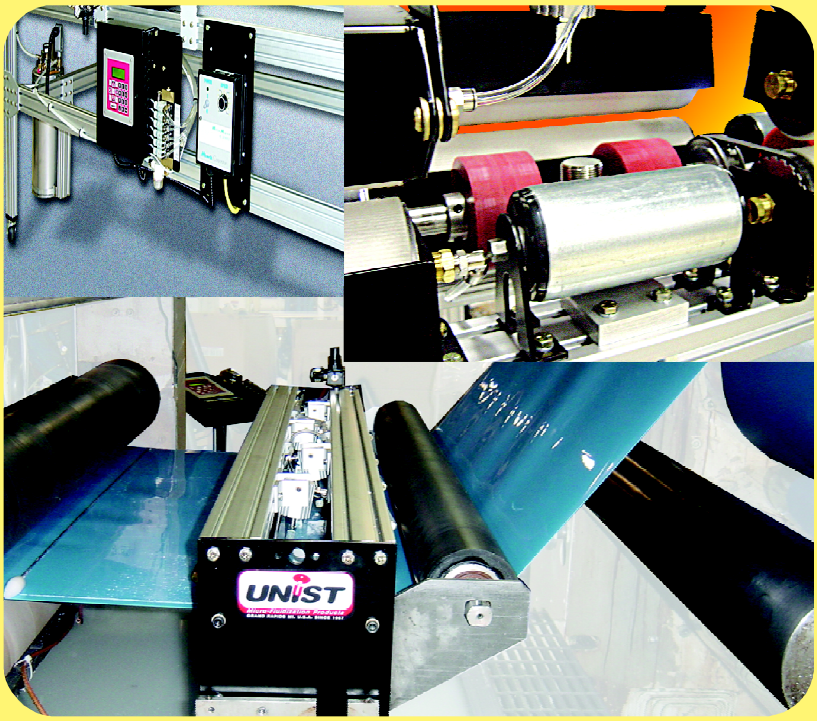


6 Quart Polyethylene Reservoir
6Q RESERVOIR



Sump Tube
55D

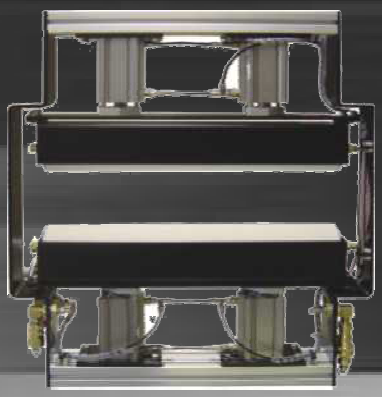
Custom Systems

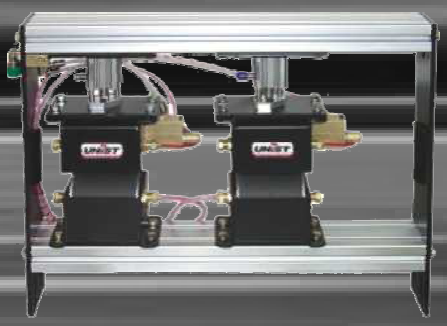


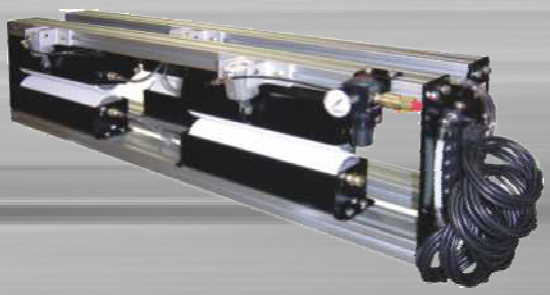
Custom Systems

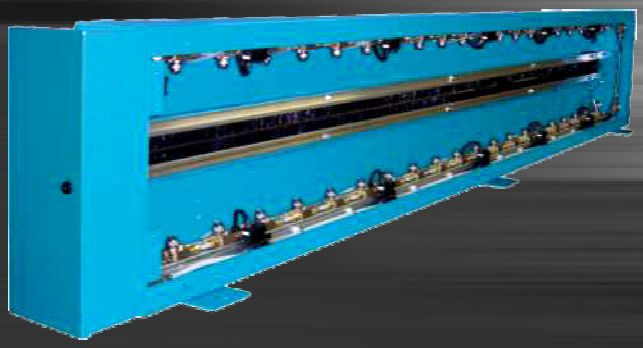
If a standard system won't meet your needs, contact UNIST for a quotation on a special system.

Whether it's a modified standard system, or a complete custom design, UNIST can engineer a solution for you.









Custom Systems