PresSpray & PresSpray Plus Systems

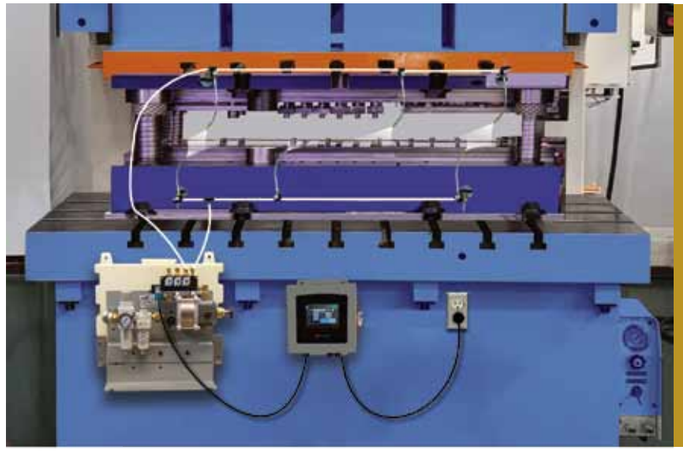
No better airless spray design for die lubrication!

LSP® INDUSTRIES, INC.

PresSpray and PresSpray Plus Systems

Here a just a few things PresSpray can do for you ...

- Dispense fluids in an airless spray - no fogging!
- Improves tool life
- Reduces lubricant consumption
- Provides adjustable volume control
- Reduces cleanup costs to parts and equipment
- Cycles automatically with machine (typically a press or feeder)
- Extremely responsive – Instantaneous On/Off capability
- Variety of fluid supply options – reservoir, pump, quick change
- Numerous nozzle options for optimal coverage

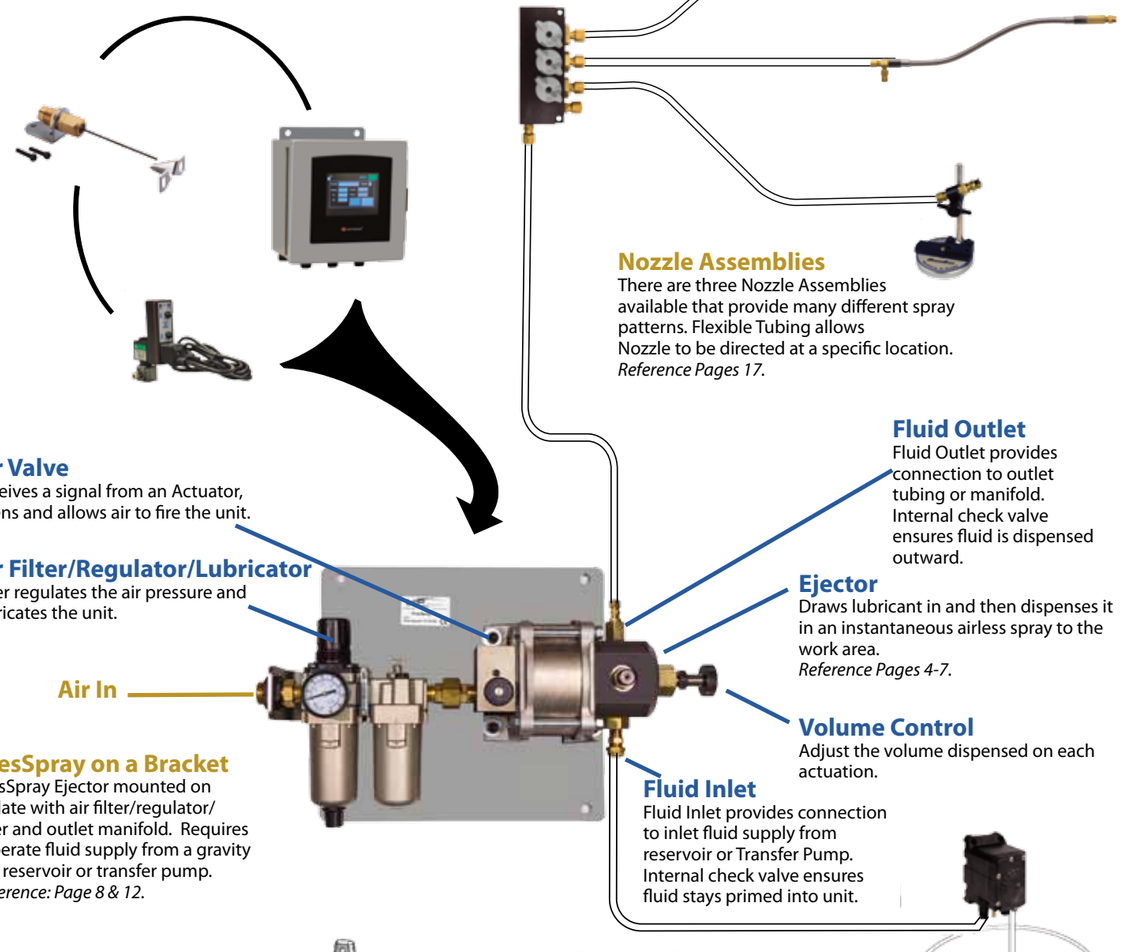


This Is How It Works

The PresSpray Ejector is the HEART of the system. It dispenses lubricant out of Nozzles with sufficient force to break the lubricant into a fine airless Spray pattern.
Determining what options to specify depends on the number of Nozzles needed, viscosity of the lubricant, method of actuating it and how the lubricant is to be supplied.

Actuators
The PresSpray Actuators when tripped send a signal to the PresSpray Ejector to dispense fluid.
Reference pages 18-19.

Manifolds
When applicable, manifolds provide for cleaner installations and split distribution to nozzles. They can be mounted directly to the ejector or remotely mounted.
Reference Pages 15-16.



Nozzle Assemblies
There are three Nozzle Assemblies available that provide many different spray patterns. Flexible Tubing allows Nozzle to be directed at a specific location.
Reference Pages 17.

Fluid Outlet
Fluid Outlet provides connection to outlet tubing or manifold. Internal check valve ensures fluid is dispensed outward.

Air Valve
Receives a signal from an Actuator, opens and allows air to fire the unit.

Air Filter/Regulator/Lubricator
Filter regulates the air pressure and lubricates the unit.

Ejector
Draws lubricant in and then dispenses it in an instantaneous airless spray to the work area.
Reference Pages 4-7.

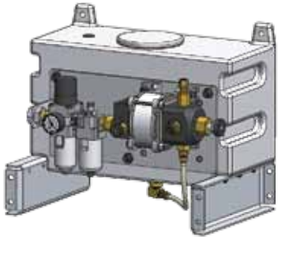
Air In

Volume Control
Adjust the volume dispensed on each actuation.

PresSpray on a Bracket
PresSpray Ejector mounted on a plate with air filter/regulator/ oiler and outlet manifold. Requires seperate fluid supply from a gravity fed reservoir or transfer pump.
Reference: Page 8 & 12.

Fluid Inlet
Fluid Inlet provides connection to inlet fluid supply from reservoir or Transfer Pump. Internal check valve ensures fluid stays primed into unit.

PresSpray on a Reservoir
PresSpray ejectors are also available mounted on Reservoirs. The Reservoir is translucent to offer a ready view of fluid level from all sides. Comes complete as shown.
Reference: Pages 9-11 and 13-15.



Transfer Pump
Air powered transfer pump pressurizes fluid from a reservoir or drum to a PresSpray. Units are ideal for large volume applications or feeding multiple PresSpray's.
Reference Page 21.

Features unique to PresSpray Systems

- **Economical Design - Manifolded Outlet for Equal Distribution**
- **Velocity Control to eliminate bounce and overspray of light fluids**
- **Five Ejectors to cover range of application needs – from a single nozzle to 20 or more nozzles**
- **Ability to spray from thin to heavy oils**
- **Expandable - Larger systems already include a two or four port manifold. To expand, simply add a manifold and nozzles.**

Piston & Ram Assembly

Forces the lubricant out of the Nozzle under high pressure to achieve a fine airless spray to evenly coat the material. The ram is made of ground and polished stainless steel for extended life.

Air Cylinder

Made of Heavy wall aluminum tubing that is hard anodized for light weight and wear resistance for a long life.

Mounting Feet

All units have feet located on the end plate castings to accept mounting screws. Mounts to any flat surface for a permanent installation.

UniValve

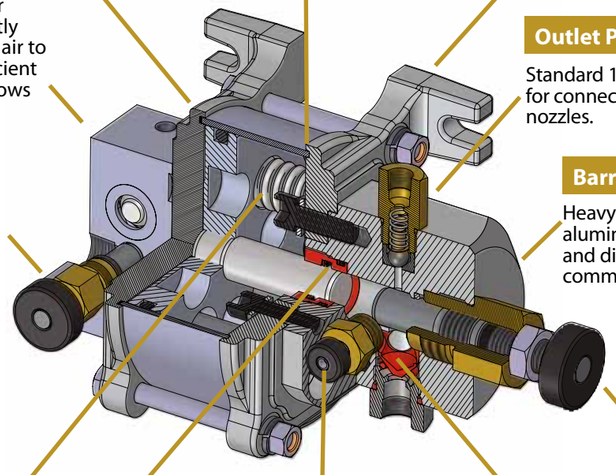
Three way air valve, properly sized for each PresSpray model. Located directly behind the piston and ram to deliver air to the PresSpray in the fastest most efficient method possible. A quick exhaust allows for fast recycling.

Outlet Port

Standard 1/8" NPTF outlet for connection to manfold or nozzles.

Velocity Control

Adjust the speed of the Piston to fine tune the force of the lubricant being sprayed. Eliminates overspray and bounce of very light lubricants.



Barrel

Heavy Duty, hard anodized aluminum. Accepts fluid in and dispenses it out upon command.

Spring Return Piston and Ram

Efficient and economical spring return of the piston & ram. Saves on air with lightning fast performance.

Gland Fitting

Encapsulates O-rings, separating the lubricant from the air in a brass gland. Securely threaded into the Barrel.

Bleeder Valve

Primes the Ejector at start-up or if the Reservoir runs dry during operation.

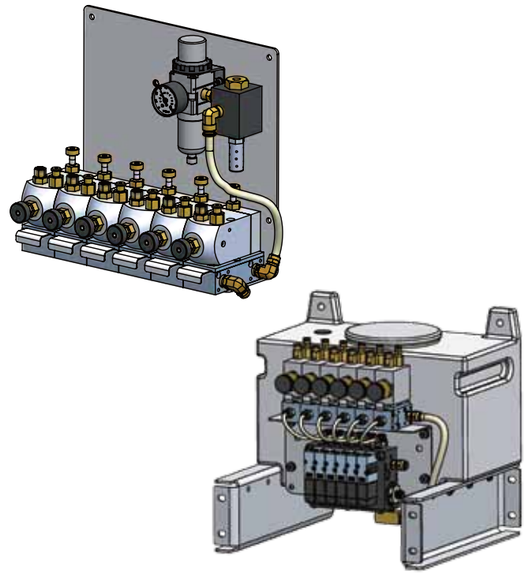
Inlet Check Valve

Allows immediate recharging of the unit between ejections. Check Valve with ample passage assures a full shot on each cycle of the unit.

Volume Control

Sets the precise amount of lubricant to be ejected. Simply adjust the thumb screw tightening the lock nut.

Features unique to PresSpray Plus Systems



- **Independent Volume Control per Nozzle**
- **Independent or Common Timing for all Ejectors**
- **Two Ejectors to cover range of application needs – from a single nozzle to six nozzles**
- **Independent or Common Timing for all Ejectors. Ability to spray from thin to heavy oils**
- **Expandable – Simply add an ejector and nozzle**

Outlet Port

3/16 compression outlet port

Bleeder Valve

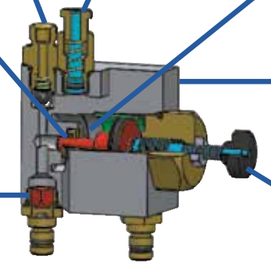
Push Button type Bleeder Valve for rapid bleeding of air from the unit at start-up time.

Piston & Ram Assembly

Forces the lubricant out of the Nozzle under high pressure to achieve a fine airless spray to evenly coat the material. The ram is made of ground and polished stainless steel for extended life.

Gland Fitting

Encapsulates O-ring, separating the lubricant from the air in a brass gland. Securely threaded into the Barrel.



Ejector

Takes a measured amount of fluid and dispenses it into an Airless Spray that carries it to the work area.

Inlet Check Valve

Allows immediate rechrging of the unit between ejections. Check Valve with ample passage assures a full shot on each cycle of the unit.

Volume Control

Sets the precise amount of lubricant to be ejected. Simply adjust the thumb screw and tightening the lock nut.

Locking Key

Firmly locks the Ejector into the Manifold. Pull the Key back 0.500" and remove the Ejector from the Manifold. Replace with another Ejector or with a cover plate to seal off the Manifold until needed. How easy is that?

Supply Manifold

The Supply Manifold provides fluid and air to each Ejector. Removal or addition of an Ejector does not disturb the integrity of the system.

PresSpray Ejector Sizing

Dispense small amounts or large amounts of lubricants with LSP PresSpray Ejectors . Each Ejector has its own unique features to make up the LSP Fluid Dispensing Systems. See how LSP Industries can solve your fluid application needs.

MicroSpray P0100
A unit that dispenses small volumes of lubricant to a single point. The ultimate in low volume control because it dispenses only .010 cu. in. at its maximum volume. The MicroSpray provides an ultra fine spray or a single drop upon command.

MiniSpray P0400
Provides four times the volume of the P0100. Normally used with one nozzle but is able to utilize up to four nozzles at one time depending on the viscosity of the lubricant. The use of additional nozzles allows the ability to lubricate different areas of the die.
Includes P932, Two-Port Manifold.

The Fluid Dispensing Ejectors handle a full range of lubricants, with the power to drive heavy viscosity oils, and the controls to govern very light lubricants. From spot lubricating a single tool to covering a large panel, there is a Fluid Ejector to do the job. All Nozzles dispense at the same time with the same amount of fluid.

MytiSpray P1250
For the medium size jobs that require heavier lubricants or larger volumes of lubricants. Capable of lubricating the stock before it enters the die, with enough in reserve to lubricate the trouble spots in a die. This unit can dispense up to ten nozzles when using water soluble lubricants. The volume can be reduced to .025 cu. in. without affecting the spray pattern.
Includes P934, Four-Port Manifold.

MacroSpray P1750
An extra large unit for the heavier viscosity lubricants or for larger parts where a greater number of nozzles are needed to accomplish total lubrication. Ideal for automotive plants, appliance plants and other manufacturers of large stampings. Large in volume, high in performance.
Includes P924, Four-Port Manifold.

MegaSpray P1350
Ideal for large jobs. It can handle up to 15 nozzles when using water soluble lubricants. Lubricate all stations of a progressive die with just one pump. Position nozzles as far as 8 feet from the MegaSpray for long progressive dies.
Includes P934, Four-Port Manifold.

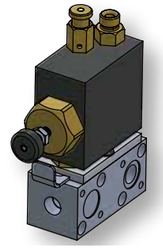
OIL VISCOSITY NUMBER OF NOZZLES								
Model	Water Soluble	100 SSU	250 SSU	400 SSU	800 SSU	1200 SSU	2000 SSU	2500 SSU
P0100	1	1	1	1	N/A	N/A	N/A	N/A
P0400	4	4	2	2	1	1	N/A	N/A
P1250	10	8	6	5	3	2	1	N/A
P1350	20	16	12	10	6	4	3	1
P1750	25	20	20	20	12	7	3	2

EJECTOR SPECIFICATION CHART			
Model No.	Volume per Cycle (cu. in.)	Strokes per Minute	Air Consumption per Cycle (600 PSI)
P0100	.000-.010	700	.00070 SCFM
P0400	.000-.040	450	.00341 SCFM
P1250	.025-.125	400	.01310 SCFM
P1350	.075-.375	325	.04714 SCFM
P1750	.150-.750	250	.10528 SCFM

The above chart is a guide and actual results may vary depending upon the tackiness of the lubricant and other variables beyond our control. Tubing lengths greater than six feet may affect

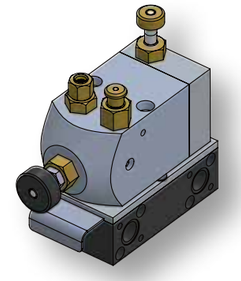
PresSpray Plus Ejector Sizing

Dispense small amounts or large amounts of lubricants with LSP PresSpray Ejectors . Each Ejector has its own unique features to make up the LSP Fluid Dispensing Systems. See how LSP Industries can solve your fluid application needs.



MicroSpray P1000
A unit that dispenses small quantities of lubricants to a single point. The ultimate in low volume control because it dispenses only .010 cu. in. at its maximum volume. The MicroSpray gives an ultra fine spray or a single drop upon command. Capable of actuating up to 700 actuations per minute.

The Fluid Dispensing Ejectors handle a full range of lubricants, with the power to drive heavy viscosity oils, and the controls to govern very light lubricants. From spot lubricating a single tool to covering a large panel, there is a Fluid Ejector to do the job.



MiniSpray P2000
Has four times the volume of the P1000. Normally used with one nozzle but is able to utilize up to four nozzles at one time depending on the viscosity of the lubricant. The use of additional nozzles allows the ability to lubricate different areas of the die.

The P1000 MicroSpray and the P2000 MiniSpray are similar in design and functionality. All Nozzles can dispense at the same or different time with differing amounts of fluid.

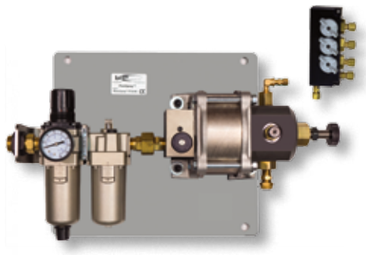
OIL VISCOSITY NUMBER OF NOZZLES								
Model	Water Soluble	100 SSU	250 SSU	400 SSU	800 SSU	1200 SSU	2000 SSU	2500 SSU
P1000	1	1	1	1	N/A	N/A	N/A	N/A
P2000	4	4	2	2	1	1	N/A	N/A

EJECTOR SPECIFICATION CHART			
Model No.	Volume per Cycle (cu. in.)	Strokes per Minute	Air Consumption per Cycle (600 PSI)
P1000	.000-.010	700	.00070 SCFM
P2000	.000-.040	450	.00341 SCFM

The above chart is a guide and actual results may vary depending upon the tackiness of the lubricant and other variables beyond our control. Tubing lengths greater than six feet may affect performance.

PresSpray Bracket Modules
For Gravity Fed or Pressure Fed Installations

Bracketed Module
A Bracketed Module consists of a PresSpray Ejector and a group of components preassembled on a bracket in a single, compact module. For convenience, the PresSpray attaches to a Bracket that includes an Air Filter/Regulator/Lubricator. A two or four port Manifold (the MicroSpray does not have a Manifold) is included with the Module. By installing the Manifolds down stream this greatly provides for a cleaner installation. The Bracketed Module takes most of the work out of installation. The user has only to decide how to interface this system with the Spray Nozzles, Reservoir or PowerPump and Actuator.



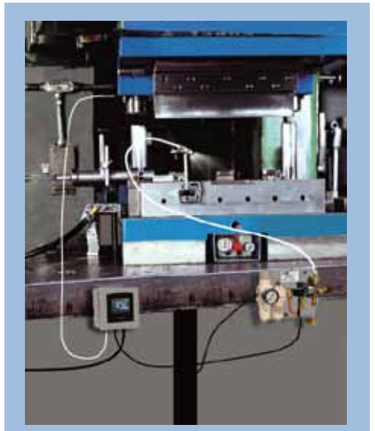
All the PresSpray Ejectors are available as a Bracketed Module. Bracketed Modules can be fed with a stand alone reservoir or from a PowerPump or Diaphragm Pump.

Bracketed Modules

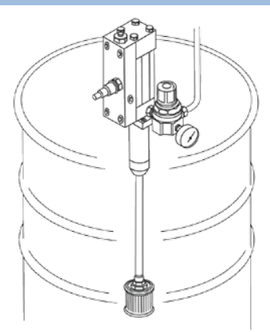
Ejector No	Manifold Outlets	Module No.
P0100	1 Port	P7010
P0400	2 Port	P7040
P1250	4 Port	P7200
P1350	4 Port	P7300
P1750	4 Port	P7500

Bracketed Modules, with the exception of the P7010, include fittings, 6' Tubing and manifold for direct or remote mounting manifold.

A P7300 Bracketed Module pressure fed from a 55 gallon drum
For large jobs or long runs it is sometimes convenient to supply lubricant from a large reservoir such as a drum.



A MicroSpray Bracketed Module
The MicroSpray lubricating a small press with a single nozzle. The unit is actuated from a LSP Electronic Controller.
Since the application needs very little lubricant the controller is set to send a signal on every third cycle of the press.



PowerPump or Diaphragm Pump
The PowerPump can be used with any size container from a five gallon pail to a 300 gallon tote. Place the inlet hose into the container and attach a hose between the PowerPump outlet and the PresSpray inlet. Turn on the air to the PowerPump and once the system is bled, the PowerPump is ready to supply
lubricant upon command. Activate the PresSpray and the PowerPump will automatically replenish any lubricant that has been dispensed by the PresSpray, always keeping it fully charged.

Reservoir Modules

Reservoir Modules consist of a Bracketed Module (as shown on page 5) pre-mounted on a Reservoir. The Reservoirs are either free standing or bolted directly to a press. The long chain polyethylene construction stands up to abusive environments. The Modules are available in 2-1/2 gallon, 5 gallon, and 10 gallon Reservoirs. After establishing the Reservoir Module, choose the actuating system and nozzles. Determine if the Manifold is to be mounted on the Ejector or down stream. Compact and portable when carried on the LSP PortaCart. Allows the user to place it where wanted and yet move it from machine to machine when necessary. Remove from the box and it is ready to go to work.

P7510 Reservoir Module
The P1750 MacroSpray on a Ten Gallon Reservoir. A big PresSpray on a big Reservoir for the big jobs. Includes the Four-Port Manifold, and the air filter/regulator/lubricator. Manifold can be attached to the PresSpray unit or located closer to the Nozzles.

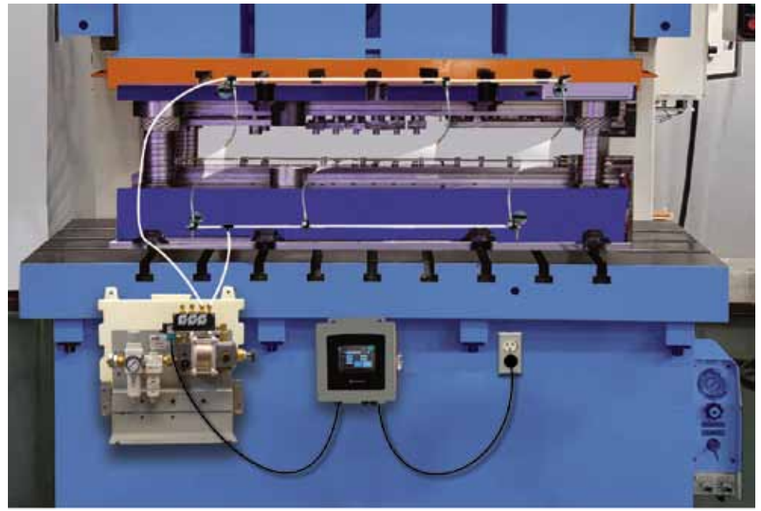
Bracketed Modules Mounted on Reservoirs Includes Reservoir, Ejector, four Port Manifold and Air Filter/Regulator/Oiler

Modules

PresSpray Ejector	Manifold Outlets	Reservoir	Module No.
P0100	N/A	1.5 Gallon	P7011
P0400	2 Port	1.5 Gallon	P7041
P0400	2 Port	2.5 Gallon	P7042
P0400	2 Port	5 Gallon	P7045
P1250	4 Port	2.5 Gallon	P7202
P1250	4 Port	5 Gallon	P7205
P1250	4 Port	10 Gallon	P7210
P1350	4 Port	5 Gallon	P7305
P1350	4 Port	10 Gallon	P7310
P1750	4 Port	5 Gallon	P7505
P1750	4 Port	10 Gallon	P7510

Bracketed Modules, with the exception of the P7010, include fittings, 6' Tubing and manifold for direct or remote mounting manifold.

P7505 Reservoir Module
The system is feeding multiple Nozzles. Remote manifolds provide clear view and access to the tool. Just two lines supplying six Nozzles. A compact system but highly efficient.



PresSpray Quick Change Reservoir System

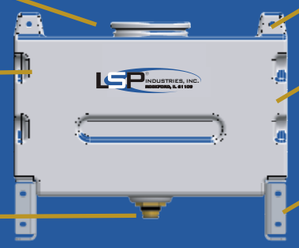
The Quick Change System allows for the quick changing of Reservoirs whenever the need occurs. If operations change and a different fluid is needed a fast change of Reservoirs is the answer rather than cleaning a Reservoir and using it again, or if wanting to keep a machine in operation without downtime a second Reservoir is always filled and ready for a fast switch to minimize downtime. Changeover is accomplished in seconds.

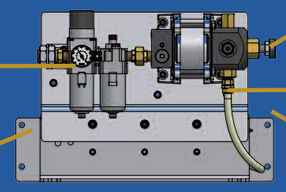
P8102 2-1/2 Gallon Reservoir
P8105 5 Gallon Reservoir
P8110 10 Gallon Reservoir

Round Snap-On Lid
Four and a half inches in diameter to allow for easy filling and cleaning. A bag filter removes unacceptable contaminates from fluid as the reservoir is filled.

Handles
Recesses on either side of the Reservoir allows for easy lifting of the Reservoir when it has to be replaced.

Male Quick Disconnect
Seals off fluid when the Reservoir is removed from the frame and opens up when reconnected to the Female Quick Disconnect on the Frame.





Filter/Regulator/Lubricator
Mounted on the Frame

Metal Frames
Has ears to mount to a wall or a base that free stands on the floor.

Mounting Brackets
Allows the mounting of the Quick Change Reservoir to a vertical surface when applicable. Designed to last.

Reservoir
A clear rectangular Reservoir that offers a visual view of the fluid level from all sides. Heavy Duty Chemical resistant long chain Polyethylene Plastic.

Two Feet
Two feet protect the Quick Change Fitting when setting the Reservoir on the floor while waiting to be attached to the Frame with the PressSpray.

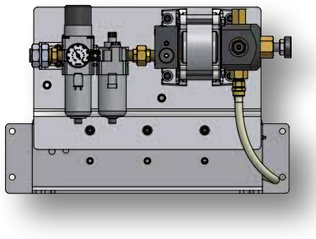
Ejectors
are factory installed on the Frame and the Frame accepts the chosen Reservoir to mate with it.

Female Quick Disconnect (Not Shown)
Located in the Frame it carries the fluid to the inlet on the PresSpray unit.

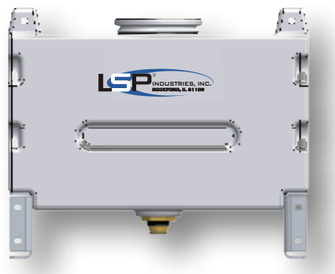
Two Spring Loaded Locking Pins
(Not Shown)
Locks the Reservoir to the Frame. Twist the Reservoir and Reservoir is disconnected from the Frame. Set the Reservoir down into the Female Quick Disconnect and it is locked to the Frame.

*** Ten gallon Reservoir filled will weigh 80 pounds. Because of lifting this weight it is recommended that it be filled only half way prior to inserting it into the Frame and then filled the remainder of the way.**
The PortaCart is recommended for the 10 gallon Reservoir

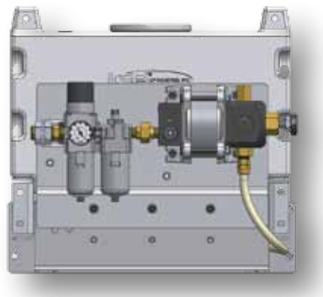
The System eliminates cleaning the reservoir when frequently changing fluids Have designated Reservoir ready and drop it into place when needed.



1. The PresSpray is mounted on a metal Frame that has a female quick disconnect to accept fluid from the reservoir as needed. Dual Spring Loaded Locking Pins hold the Reservoir to the Frame.



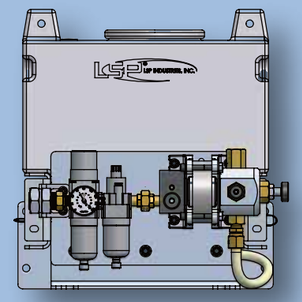
2. A Reservoir standing on two feet, filled with fluid, ready to be attached to the PresSpray on a Frame. Just insert male quick disconnect into mating part located on the Frame. Press the Reservoir down to finalize the connection.



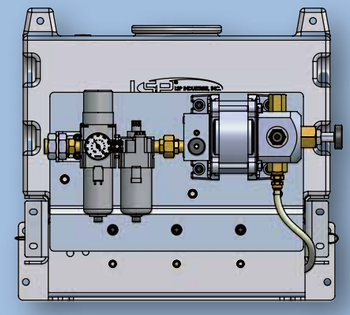
3. Reservoir and frame with the PresSpray is now locked in place and ready to use. No Valves to forget to open or close, just turn on the machine and start to run. Could it be any easier?

PresSpray Modules with Quick Change Reservoirs

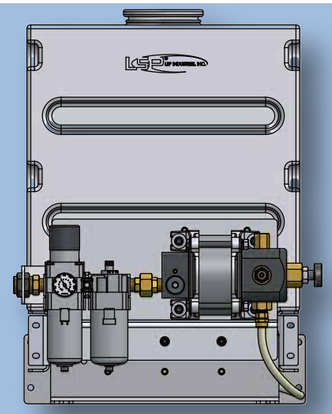
Available in 2-1/2 gallon, 5 gallon and 10 gallon Reservoir. Choose the type of Ejector needed, the Actuator of choice and the Nozzle Assembly that best fits the application for a Quick Change System.



P8202
P1250 on a 2-1/2 Gallon Quick Change Reservoir



P8305
P1350 on a 5 Gallon Quick Change Reservoir

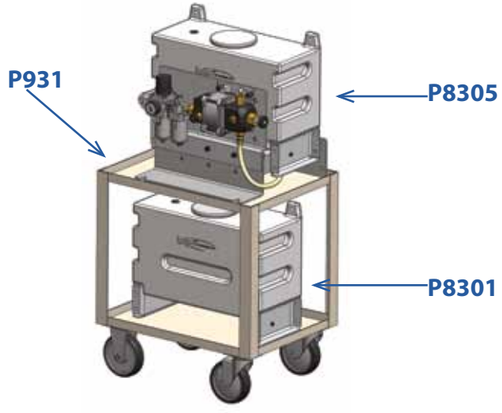


P8710
P1750 on a 10 Gallon Quick Change Reservoir

Shown above are three examples of the different size Quick Change Reservoirs with PresSpray units that comprise the Quick Change System. The chart below shows the PresSpray units available with the various size Quick Change Reservoirs. The Quick Change Reservoirs stand on metal feet so that the Reservoir protects the quick disconnect feature that facilitates the rapid change of Reservoirs. Comes with a Quick Change fitting for easy mating of the Reservoir to the PresSpray Unit. Includes a large Filter Bag to keep the fluid clean.
Reference: Page 10 & 11 for choice of Nozzles and Page 12 for choice of Actuators.

Ejector	On a 2-1/2 Gallon Reservoir	On a 5 Gallon Reservoir	On a 10 Gallon Reservoir
P0400	P8042	P8045	
P1250	P8202	P8205	P8210
P1350		P8305	P8310
P1750		P8705	P8710

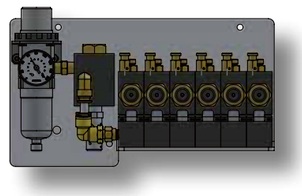
PresSpray with Quick Change Reservoir
Ejector shown on a 5 gallon Quick Change Reservoir on a PortaCart. The PortaCart keeps the unit at a convenient height plus offers ease of moving the system from one location to another should the need arise.



PresSpray Plus Bracket Modules

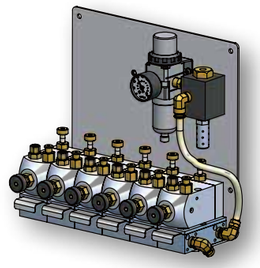
For Gravity Fed or Pressure Fed Installations

PresSpray Plus mounted onto a Bracket allows for a system to be used in a variety of installations. The Bracketed units stand alone and are fed by gravity feed Reservoirs or force fed with a Pressure Pot or Diaphragm Pump. The Bracketed units can be mounted on to a vertical surface in a location convenient for an operator to adjust as needed. Number of Ejectors can changed as circumstances dictate rather than purchasing a new system.



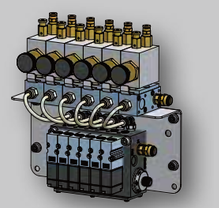
Commonly Timed

All ejectors dispense fluid at the same timing sequence. MicroSpray units must be signaled electronically; MiniSpray Units can be signaled pneumatically or electronically. Volume is individually adjustable per ejector.



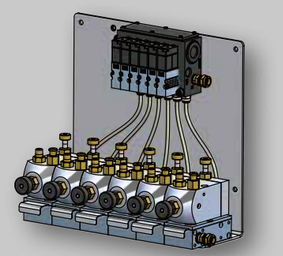
Commonly Timed on a Bracket

	MicroSpray	MiniSpray
No. of Ejectors		
1	P1100-1	P4100-1
2	P1100-2	P4100-2
3	P1100-3	P4100-3
4	P1100-4	P4100-4
5	P1100-5	P4100-5
6	P1100- 6	P4200- 6



Independently Timed

All ejectors can dispense fluid at the same or different timing sequence. All units must be signaled electronically; Volume is individually adjustable per ejector.

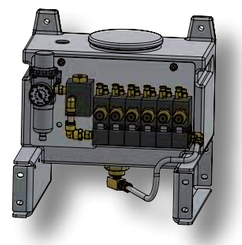


Independently Timed on a Bracket

	MicroSpray	MiniSpray
No. of Ejectors		
2	P2100-2	P5100-2
3	P2100-3	P5100-3
4	P2100-4	P5100-4
5	P2100-5	P5100-5
6	P2100-6	P5100-6

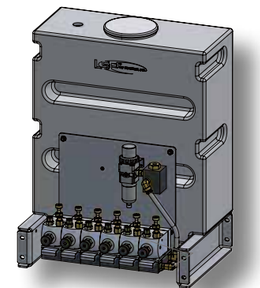
PresSpray Plus Reservoir Modules

PresSpray Plus units are attached directly to Reservoirs at the LSP factory with the necessary accessories to reduce installation time and labor. The assembled package can be permanently attached to the side of a press or set on a LSP PortaCart for easy mobility from press to press. The preassembled Reservoirs on a PortaCart offers the proper height for easy refilling of the reservoir when necessary.



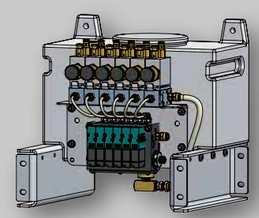
Commonly Timed

All ejectors dispense fluid at the same timing sequence. MicroSpray units must be signaled electronically; MiniSpray Units can be signaled pneumatically or electronically. Volume is individually adjustable per ejector.



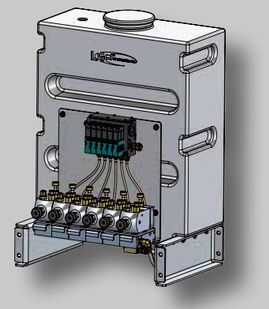
Commonly Timed on Reservoirs

	MicroSpray			MiniSpray			
No. of Ejectors	1-1/2 Gal. Reservoir	2-1/2 Gal. Reservoir	5 Gal. Reservoir	1-1/2 Gal. Reservoir	2-1/2 Gal. Reservoir	5 Gal. Reservoir	10 Gal. Reservoir
1	P1301-1	P1302-1	P1305-1	P4300-1	P4302-1	P4305-1	P4310-1
2	P1301-2	P1302-2	P1305-2	P4300-2	P4302-2	P4305-2	P43105-2
3	P1301-3	P1302-3	P1305-3	P4300-3	P4302-3	P4305-3	P4310-3
4		P1302-4	P1305-4		P4302-4	P4305-4	P4310-4
5		P1302-5	P1305-5		P4302-5	P4305-5	P4310-5
6		P1302-6	P1305-6		P4302-6	P4305-6	P4310-6



Independently Timed

All ejectors can dispense fluid at the same or different timing sequence. All units must be signaled electronically; Volume is individually adjustable per ejector.



Independently Timed on Reservoirs

	MicroSpray			MiniSpray			
No. of Ejectors	1-1/2 Gal. Reservoir	2-1/2 Gal. Reservoir	5 Gal. Reservoir	1-1/2 Gal. Reservoir	2-1/2 Gal. Reservoir	5 Gal. Reservoir	10 Gal. Reservoir
1				P5301-1			
2	P2301-2	P2302-2	P2305-2		P5302-2	P5305-2	P5310-2
3	P2301-3	P2302-3	P2305-3		P5302-3	P5305-3	P5310-3
4		P2302-4	P2305-4		P5302-4	P5305-4	P5310-4
5		P2302-5	P2305-5		P5302-5	P5305-5	P5310-5
6		P2302-6	P2305-6		P5302-6	P5305-6	P5310-6

PresSpray Plus Quick Change Reservoir System

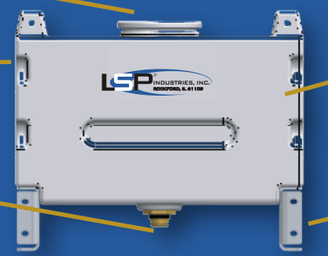
The Quick Change System allows for the quick changing of Reservoirs whenever the need occurs. If operations change and a different fluid is needed a fast change of Reservoirs is the answer rather than cleaning a Reservoir and using it again or if wanting to keep a machine in operation without downtime a second Reservoir is always filled and ready for a fast switch to minimize downtime. Changeover is accomplished in minutes.

P8102 2-1/2 Gallon Reservoir
P8105 5 Gallon Reservoir
P8110 10 Gallon Reservoir

Round Snap-On Lid
Four and a half inches in diameter to allow for easy filling and holds bag filter to always keep the fluid clean.

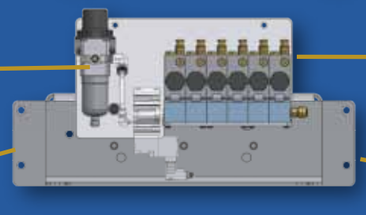
Handles
Recesses on either side of the Reservoir allows for easy lifting of the Reservoir when it has to be replaced.

Male Quick Disconnect
Seals off fluid when the Reservoir is removed from the Frame and opens up when reconnected to Female Quick Connect on the Frame



Reservoir
A clear rectangular Reservoir that offers a visual view of the fluid level from all sides. Heavy Duty Chemical resistant long chain Polyethylene Plastic.
Designed to last.

Two Feet
Two feet protect the Quick Change Fitting when setting the Reservoir on the floor waiting to replace an empty Reservoir.



Filter/Regulator/Lubricator
Mounted on the frame. Only included with Commonly Timed systems.

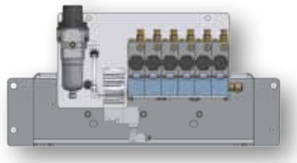
Two Spring Loaded Locking Pins
(Not Shown)
Locks the Frame to the Reservoir. Twist the Reservoir and Reservoir and Frame are disconnected. Push the Reservoir down and it is locked to the Frame.

PresSpray Plus Ejectors
Mounted on manifolds and fastened to frame

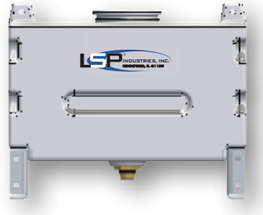
Metal Frames
Has ears to mount to a wall or a base that sets on the floor. Frame will accept up to 6 PresSpray Plus Ejectors.

Reference: Choice of Reservoir, Top of Page
Choice of Nozzles, Page 12
Choice of Actuators, Page 13

When frequently changing fluids the Quick Change Reservoir System eliminates the necessity for cleaning the Reservoir to accept the new fluid. Have designated Reservoirs and just drop into place when needed.



1. The PresSpray Plus is mounted on a metal Frame that has a female quick disconnect to accept fluid from the reservoir as needed. Dual Spring Loaded Locking Pins hold the Reservoir to the Frame.

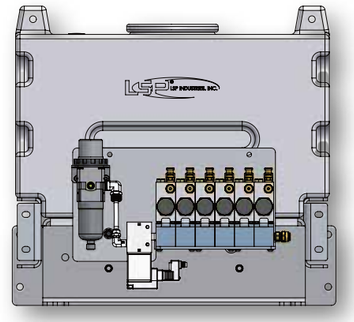


2. A Reservoir standing on two feet, filled with fluid ready to be attached to the PresSpray Plus on a Frame. Just insert male quick disconnect into mating part on the Frame. Press down on the Reservoir to finalize the connection

3. Reservoir and frame with the PresSpray Plus are now locked in place and ready to use. No valves to forget to open or close, just start the machine and begin to run. Could it be any easier?

PresSpray Plus Quick Change Reservoir Modules

Available in 2-1/2 gallon, 5 gallon and 10 gallon Reservoir. Choose the type of Ejector needed, the Actuator of choice and the Nozzle Assembly that best fits the application for a Quick Change System.

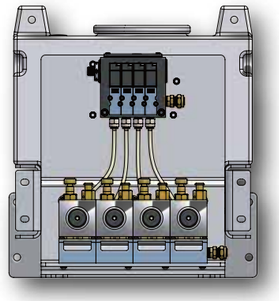


Commonly Timed

Six P1000 PresSpray Plus Ejectors mounted to a Metal Frame accepts a 5-Gallon Reservoir. The Reservoir has feet for resting on the floor or a cart while waiting to be attached to a Frame. Comes with Quick Change fittings for easy matting of the Reservoir to the Frame. Includes a large Filter Bag to keep the fluid clean.

Commonly Timed on Reservoirs

	MicroSpray		MiniSpray		
No. of Ejectors	2-1/2 Gal. Reservoir	5 Gal. Reservoir	2-1/2 Gal. Reservoir	5 Gal. Reservoir	10 Gal. Reservoir
1	P1802-1	P1805-1	P4802-1	P4805-1	P4810-1
2	P1802-2	P1805-2	P4802-2	P4805-2	P4810-2
3	P1802-3	P1805-3	P4802-3	P4805-3	P4810-3
4	P1802-4	P1805-4	P4802-4	P4805-4	P4810-4
5	P1802-5	P1805-5		P4805-5	P4810-5
6	P1802-6	P1805-6		P4805-6	P4810-6



Independently Timed

Four P2000 PresSpray Plus Ejectors on a 2-1/2 gallon Quick Change Reservoir. The Reservoir has feet for resting on the floor while waiting to be integrated to the Frame. Comes with Quick Change fittings for easy mating of the Reservoir to the Frame and includes a large Filter Bag to keep the fluid clean.

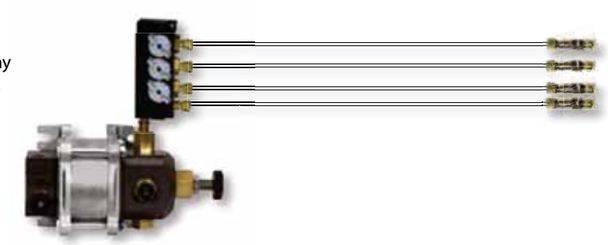
Independently Timed on Reservoirs

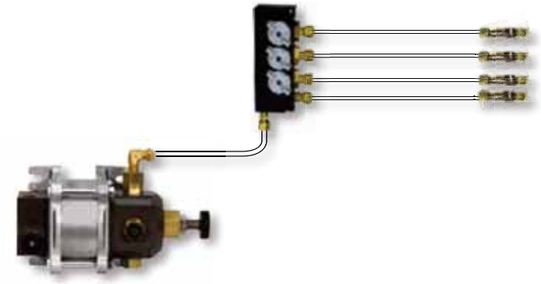
	MicroSpray		MiniSpray		
No. of Ejectors	2-1/2 Gal. Reservoir	5 Gal. Reservoir	2-1/2 Gal. Reservoir	5 Gal. Reservoir	10 Gal. Reservoir
1	N/A	N/A	N/A	N/A	N/A
2	P2802-2	P2805-2	P5802-2	P5805-2	P5810-2
3	P2802-3	P2805-3	P5802-3	P5805-3	P5810-3
4	P2802-4	P2805-4	P5802-4	P5805-4	P5810-4
5	P2802-5	P2805-5	N/A	P5805-5	P5810-5
6	P2802-6	P2805-6	N/A	P5805-6	P5810-6

Nozzle Distribution Systems

The PresSpray offers a variety of ways to locate nozzles in a press to offer maximum spray coverage of the die or stock while allowing for the cleanest installation possible. Locate where the nozzles are to be positioned to determine if the distribution manifold is to be mounted on the PresSpray or down stream on the press.

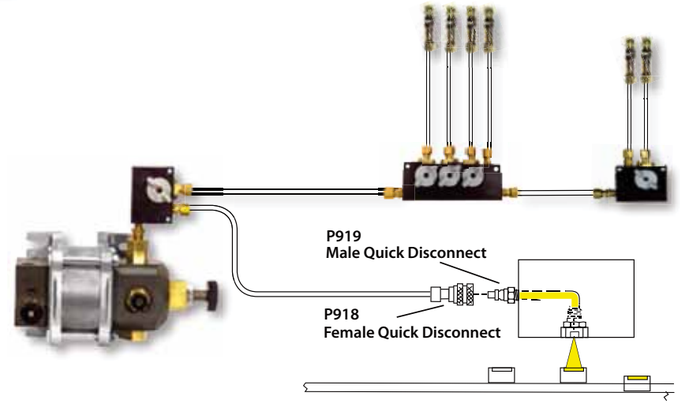
Manifold Attached to the PresSpray
Two port, four port or larger ExpandaFold manifold can be attached directly to the PresSpray and nozzle extended from there to the work area.





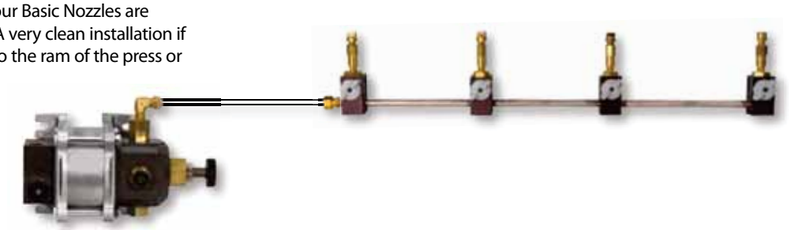
Manifold Remote from the PresSpray
A single manifold either two port, four port or a special ExpandaFold manifold can be attached remote from the PresSpray.

Multiple Remote Manifolds and In-Die Nozzle.
The different ways to layout a PresSpray system is only limited to the imagination. Two Manifolds and an In-Die nozzle complete this system. In-Die nozzle stays with the die for accurate lubrication and speed of setup.



In Die Application

ExpandaFold Manifold
An ExpandaFold with four outlets and four Basic Nozzles are attached remotely from the PresSpray. A very clean installation if one wants to mount the nozzles direct to the ram of the press or the lower base of the die.



Make the Remote Manifold Portable
To facilitate the installation and portability of Remote Manifolds use the two magnets shown to the right to hold the Manifolds in place on metal surfaces. Simply screw the Manifolds into the Magnet Bracket and set in place.

Nozzles for the PresSpray Systems

A vast variety of Nozzles and Nozzle Accessories are available to individualize every PresSpray application. Choose the Nozzle of choice and Accessories to fit your particular application.

P927 Nozzle Extender
Nozzle Bracket with base, post, extension and two swivels provides extended reach and adjustment. The base Bracket allows the assembly to be permanently mounted to a surface or magnet.

P925 Swivel Nozzle Bracket
Moves up and down on a 6" rod and rotates 360º for proper positioning of the nozzle.

P905 Magnetic Base
Accepts the P925 Swivel Base. It allows for easy placement, positioning or relocation of the spray nozzle.

P940 1/4" High Pressure Tubing
P943 3/16" High Pressure Tubing
The only acceptable non-metal tubing for fluid distribution. Alternatives will likely result in poor spray patterns and after drips.

MagnaTube with Magnet Mount
Consist of a FlexTube mounted on a powerful magnet. It can be moved out of the way for setups or maintenance problems and returned as soon as the machine is ready.

FlexTube with Stud Mount
A spray nozzle attached to a flexible tube with mounting bracket. The mounting bracket is a 1/8 NPTM that allows permanent installation in a die area.

FlexTube Less the Stud with 1/8 NPTM
A spray nozzle attached to a flexible tube with a 1/8 NPTM at the other end that allows the FlexTube to be screwed directly into a two port, four port or ExpandaValve system.

Check Valves are built into all Nozzle Assemblies.			For all PresSpray & PresSpray Plus Systems (except MicroSpray Ejectors P0100 and P1000)	Only for PresSpray & PresSpray Plus Systems with MicroSpray Ejectors P0100 and P1000)	For all PresSpray & PresSpray Plus Systems
MicroSpray Units with P0100 or P1000 Ejectors require nozzles with 3/16" Compression Connections					
		Size Connection >	*1/4" Compression*	*3/16" Compression*	*1/8" NPT*
Style	**Size**	**Coverage**	**Part No.**	**Part No.**	**Part No.**
Basic Nozzle Assembly with Check Valve	**.5" Round Body x 2.5" Long**	95° Fan		P5010	
		110° Fan	P201	P5011	P251
		80° Fan	P202	P5012	P252
		65° Fan	P203	P5013	P253
		25° Fan	P205	P5015	P255
		15° Fan	P208		
		55° Round	P207		P257
		Drop		P5016	
		Rt. Angle	P209		P259
FlexTube Nozzle Assembly with Check Valve	**12" Long with 1/8" NPT Stud Mount**	110° Fan	P211		P261
		80° Fan	P212		P262
		65° Fan	P213		P263
		25° Fan	P215		P265
		55° Round	P217		P267
MagnaTube Nozzle Assembly with Check Valve	**12" Long with Magnetic Base**	110° Fan	P221		
		80° Fan	P222		
		65° Fan	P223		
		25° Fan	P225		
		55° Round	P227		
In-Die Nozzle with Check Valve	**.875" Long**	110° Fan			P241
		80° Fan			P242
		65° Fan			P243
		25° Fan			P245
		Drop			P246

Basic Nozzle with Compression Fitting
Available with compression fittings to attach to LSP High Pressure Tubing. Short lengths make them ideal to fit in close areas. Can be used with the P925 Swivel Bracket for fast positioning of the spray.

Basic Nozzle with 1/8" NPT Pipe Thread
For direct mounting into manifold or tool.

In-Die Nozzle with 1/8 NPTM
Permanently inserted in a die. By having the tool properly positioned the setup time is reduced, production is increased and parts rejected is greatly reduced. The LSP Quick disconnect allows the tubing supplying the lubricant to be detached from the die to enable die to be removed from the press.

Actuators

Three basic Actuators are available for cycling the PresSpray Ejector. A basic Actuator consists of a Mechanical Actuator that triggers when a moving part of the press moves a whisker. Another Actuator is a Solenoid Valve which receives a signal from a limit switch and then activates the PresSpray. A third Actuator is the LSP Electric Timer that works on a predetermined time cycle unrelated to the cycle of the press.

Choose the Correct Actuator for the Job

Each Ejector comes with an attached air valve that is actuated with one of the four Actuators shown here.

The **LSP Electronic Controller** delivers multiple actuations on different cycles of the machine when programmed.

The **Mechanical Actuator** can operate five feet from the Ejector and can be mounted on a magnet.

The **Electric Timer** operates independent of the cycle of the machine on a repetitive cycle.

The **Solenoids** actuate every time they receive an electrical impulse.

Mechanical Actuator

P901 Mechanical Actuator
Totally air operated and requires no electric in-put. Sets up to 5 feet away from the Ejector and close to a moving part of the press. The moving part moves the wand on each cycle of the press causing the Mechanical Actuator to actuate the PresSpray and deliver lubricant to the die.

Electric Timer & Valve

P3056 Electric Timer
It divorces the Ejector's operation from the machine's cycle and gives it a timed cycle of its own. The Electric Timer is best used on continuous feeds like Roll Formers or Slitting applications. The Timers activate the Ejectors from once a minute to 120 cycles per minute while power is provided to the timer.

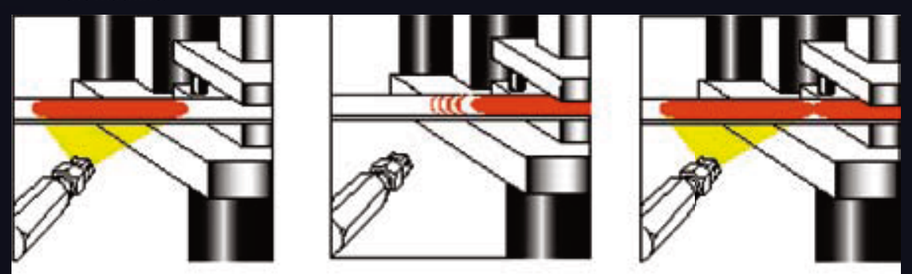
Solenoid Valve

P230 24 V Solenoid and P912 110 V Solenoid
The Solenoid Valve is actuated when it receives an electrical signal from a controller. Connect the Solenoid to an electric switch that can energize it when necessary. The PresSpray will cycle immediately when the Solenoid Valve energizes. It mounts directly on the UniValve on the back of the PresSpray or remotely, up to four feet away.

Spray Sequence Using a Timer

Timer Application
An Application at a high cycle rate with very short stock progressions usually requires very little lubricant at each cycle. Instead of controlling the operation with a standard Actuator, (ejecting a tiny amount of lubricant at every stroke of the machine) a Timer/Actuator can be used. Larger ejections are applied to lengths of the stock in timed intervals that coincide with the progression of the stock into the machine.

Using this motion for this type application can give as good or better lubricant coverage with less consumption of both air and lubricant. Ejecting a larger quantity less often is more efficient and easier to control. The Spray Nozzles are easy to adjust for proper coverage.



LSP Electronic Controllers

LSP Electronic Controllers are specifically designed to control the operation of the PresSpray systems. The controller receives a signal from a proximity sensor that captures each cycle of the machine, typically a press, and relays that information to the controller. Once the controller receives that information it takes control of the PresSpray and dictates when and how much lubricant it is to dispense lubricant to the die area.

E3300
One Input, one Output
E3302
One Input, two Outputs

Consist of a touch screen PLC, solenoid valve, proximity sensor and mounting bracket.
FEATURES
Touch Screen: Visually sets the parameters of the program.
Lockout: Prevents unauthorized from changing the program.
Time Delay: Determines how long a delay will transpire before activating the PresSpray after a signal is received.
Pulsator: Gives the PresSpray multiple actuations per cycle of the press.
Counter: Allows the PresSpray to activate on any cycle of the press from 1 - 99.
Memory: Switch to the memory function, assign a number and save. Recall the number the next time the job is run and the PresSpray is ready for operation. Memory can save up to 99 jobs.

E3315
A TIMER
One Input, one output

Sends repetitive split second signals to actuate the PresSpray. These signals are adjustable from one to ninety nine hours or as fast as 300 per minute. The timer is not tied into each cycle of the press but is tied into the on/off cycle of the press itself. An open ended cord is supplied and is used in place of the sensor. Attach this cord to an external switch that is activated on for as long as the machine is running. When the switch is in the "ON" mode the timer Actuator is on, when the switch is in the "OFF" mode the Time Actuator is de-energized.
Also has a memory to save past jobs.
Best applications are high speed presses, roll formers and other similar equipment.

P931 PortaCart
Used to transport PresSpray and PresSpray Plus Reservoir Modules including extra reservoirs for Quick Change Modules.

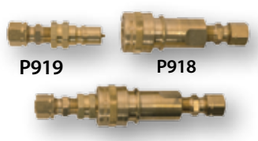
P9034 Magnetic Level & Cable for 1-1/2 & 2-1/2 Gal. Res.
P9035 Magnetic Level & Cable for 5 Gal. Res.
P9036 Magnetic Level & Cable for 10 Gal. Res.
Can attach directly to the LSP Electronic Controller.

P9030 Level Control, 1-2/2 & 2-1/2 Gallon
P9031 Level Control, 5 Gallon
P9032 Level Control 10 Gallon
Activates a light when the lubricant level is low.

Tubing
P940 1/4" High Pressure Tubing - Flexible
P943 3/16" High Pressure Tubing - Flexible
P948 1/4" Copper Tubing
P949 3/16" Copper Tubing
P950 3/8" High Pressure Tubing - Flexible

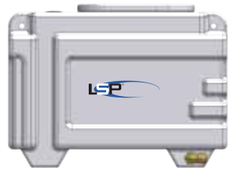
ExpandaValve
ExpandaValves tied together with tie rods create a compact manifold. Unlimited number of valves can be combined to create a Manifold.
Can be used in place of the Four Port Manifold.
Reference the ExpandaFold catalog for applications to create unique manifolds.

Manifold Cover Plate
P9012 Manifold Cover Plate for P1000 MicroSpray
P9013 Manifold Cover Plate for P2000 MiniSpray

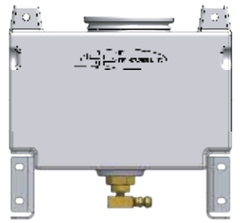


Quick Disconnect
Attach Nozzles to the Ejector. Allows leaving Nozzles with dies when stamping is done. New die with Nozzles inserted can be can be attached with the Quick Disconnect.

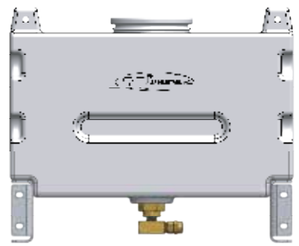
V911
Union 1/8 NPTM X 1/8 NPTM
For easy connecting and disconnecting various components.



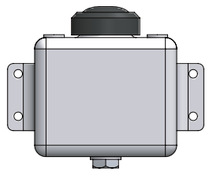
P312-D 1-1/2 Gallon Reservoir
P315-D 5 Gallon Reservoir
A gravity feed Reservoir for PresSpray Plus MicroSpray Systems. Can be mounted on horizontal or vertical surface.



P7102 - 2-1/2 Gallon Reservoir
A compact 2-1/2 gallon Reservoir. Can be mounted on horizontal or vertical surface.



P7105 - 5 Gallon Reservoir
A medium size 5 gallon Reservoir. Can be mounted on horizontal or vertical surface.



P7100 2 Quart Reservoir
A Gravity Feed Reservoir for the P0100 and P1000 MicroSpray Ejectors.

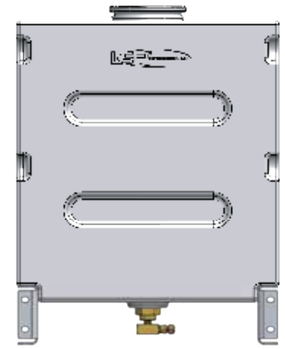
The PresSpray units can be supplied with fluid by a number of means. Here we are showing methods to supply fluid to the PresSpray from a remote location. Supplying fluid from a Gravity Feed Reservoir should be from a location higher than the PresSpray Ejector. This allows ejector to be mounted closer to the work area thus reducing tubing to nozzles improving performance and cleanliness of installation.

Six reservoirs are offered for gravity feed applications to accommodate various sized PresSpray ejectors. The translucent white color provides a visual level indication. All contain filters and tubing for connecting to systems. Two feet support the reservoir and protect the outlet on the bottom of the Reservoir.

The last method of remote feeding is the P7310 Diaphragm Pump. Distance is no obstacle and the unit is supplying one or more PresSpray systems.

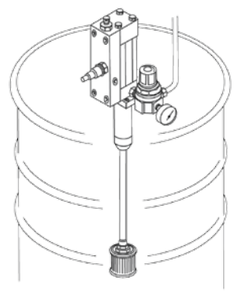
There are many ways to supply the fluid, these are just a few. Other ways of supplying fluid are shown elsewhere in the catalog.

P7306 - 1 Gallon Pressure Pot
A one gallon Pressure Pot to feed fluid under pressure. Clear reservoir, pressure regulator for air in and a solenoid valve at the fluid out port. Includes a 30PSI pop-off valve.



P7110 - 10 Gallon Reservoir
Due to weight considerations, mount on horizontal surface above PresSpray ejector.

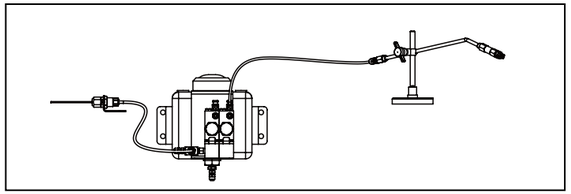
P7310 - Diaphragm Pump
One pump is capable of supplying fluids to multiple PresSpray units. Comes with three feet of inlet tubing and filter.



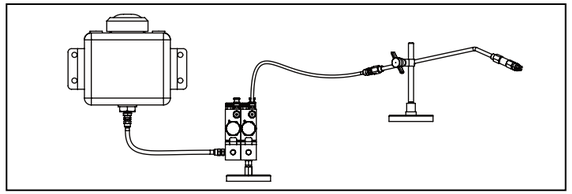
P515 - PowerPump
Air operated piston pump for pressure feeding viscous fluids to PresSpray units.

Configurations

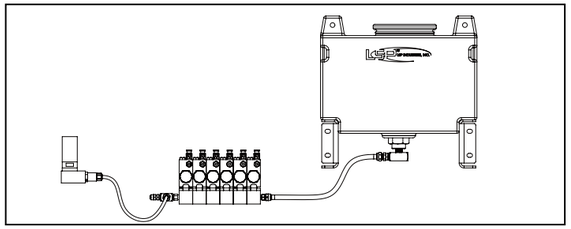
The PresSpray Plus can be set up in a variety of configurations using different accessories. With the unique design it can be assembled in many different ways depending upon the user's needs. There are many options for a system. Here are but a few, use your imagination for other configurations.



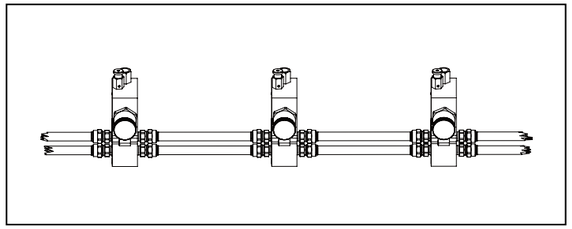
Ejectors mounted on the 2 quart Reservoir. Shown with a Mechanical Actuator used to actuate the unit. Mount Reservoirs permanently to a vertical surface or use magnets for easy relocation. The PresSpray Plus MicroSpray is the only unit that mounts on the 2 quart Reservoir.



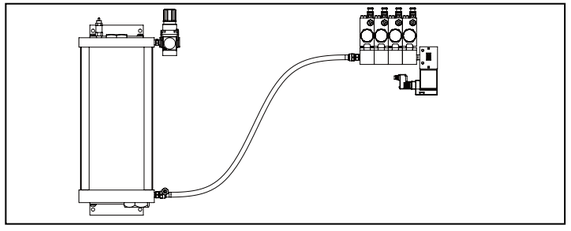
The gravity feed system using the 2 quart Reservoir is for small applications. By mounting the Ejectors remotely from the Reservoir it allows Ejectors to be located closer to the work area. A magnet supporting the Ejectors allows for easy relocation if needed.



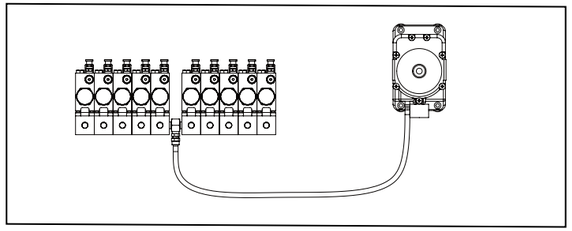
Ejectors actuated with an Air Timer which gives a repetitive signal regardless of the cycle of the machine. Ideal for roll formers or ultra high speed machines. Set the speed on the Air Timer and it will pulsate until turned off. Can be tied into the machine for on/off.



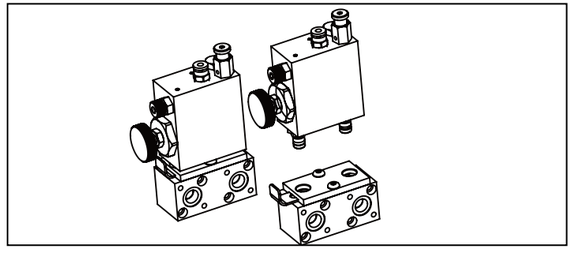
Lubricate a number of spots located over a long distance. Position Ejectors where needed and connect them with rigid tubing or LSP heavy wall nylon tubing. Actuate all at the same time or programmed to actuate when needed.



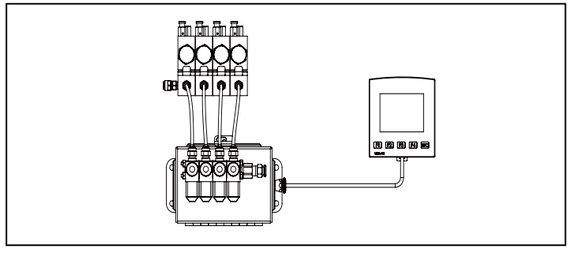
Feed Ejectors with a Pressure Pot. Either one can be located remotely, either close or far and can be situated either higher or lower than the fluid Ejectors. Comes with a 30 PSI Pop-Off and an Air Regulator.



For big jobs use the LSP Diaphragm pump. It can supply fluid to 25 or more Ejectors. The Ejectors can be located on one machine or spread out over a number of machines. Choose the actuator of your choice to actuate the units.



The PresSpray Plus MicroSpray can be removed from their Manifolds by simply unlocking the key and lifting the Ejector up. Should the unit need servicing, remove the Ejector and replace with a standby Ejector while the original is being serviced.



A Solenoid Manifold is utilized to actuate individual Ejectors Independent of each other. Solenoids are activated from a program on the LSP Electronic Controller. Solenoid Manifolds are available with 4, 5 or 6 Solenoids.

Spray Cabinets

A totally enclosed spray cabinet where lubricant is applied to coil stock as it passes through on its way to the die. Brushes at the entrance and the exit contain the lubricant in the box and spread it evenly over the material as it exits the cabinet. Any excess lubricant is drained back to the tank to be reused again. Constructed of heavy gauge stainless steel, built to last a lifetime. Easy to use. All assembly is done at the LSP factory thus saving the end user valuable installation time.

Built-In Nozzles

Forces the lubricant out of the Nozzle under high pressure to achieve a fine airless spray to evenly coat the material. The ram is made of ground and polished stainless steel for extended life.

Internal Stock Guides

One half inch stainless steel rods act as angled guides so stock is easily threaded through the cabinet. One half inch gap between guides handle either heavy or light gauge material.

Spray Cabinet

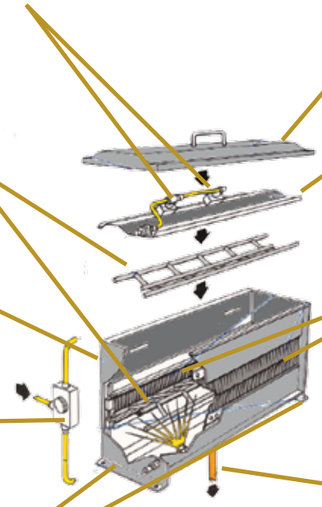
Heavy gauge Stainless Steel made to withstand the rugged environment of a stamping department.

Inlet Manifold

Externally mounted Manifold to accept the tubing from the PresSpray. Allows the option of shutting off bottom lubrication if not needed.

Mounting Feet

Located on both ends for easy installation. Two screw holes on each foot make for easy mounting.



External Lid

Protects and keeps the nozzle area clean. Easily removable when access to a nozzle is necessary.

Internal Lid

Holds nozzles and tubing. Prevents lubrication from leaving the spray chamber. Lifts off for easy cleaning.

Brushes at Inlet & Outlet

Totally seals the cabinet to contain the lubricant and evenly dispenses the lubricant across the stock as it leaves the cabinet. Brushes are held in holders that self align with the stock. This allows the material to always be centered between the brushes.

Return Drain

Excess lubricant is returned back to the reservoir to be reused again. A large one inch union with one inch tubing allows for an unrestricted flow of lubricant when the PresSpray is operating.

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