

# Airless Spray System

## In This Issue:

Airless Spray System *pg. 2*

Improved FlowMaster® *pg. 5*

MC<sup>2</sup> Progressive High Pressure Divider Valves *pg. 6*

Quickline® High Pressure Hose Fittings *pg. 8*



**NEW**

# Innovative Technology

## Airless Spray High Pressure System Offers Many Benefits

No air required—three words describe why Lincoln's innovative new Airless Spray System is the only system of its kind on the market. But it takes many more words to list all the benefits the latest in Lincoln's long line of technological advances has to offer. Because no air is required, the Airless Spray System means that mining, concrete, steel and other heavy industries can look forward to dependable high-pressure lubricant spraying that's low-maintenance and cost-effective.

Lincoln's Airless Spray System eliminates freeze-ups because it works in a wide range of temperatures. The system requires less plumbing and the non-atomizing spray reduces lubricant consumption and fogging. The system's constant lube temperature makes the spray pattern more uniform. A more powerful spray forces lube into surface pores. And with the system's wide range of spray patterns, lubricant gets where it's needed.

But Lincoln's Airless Spray System does even more. Spray widths of 24" or more promote lubricant dispersion over the entire surface. The system can spray from distances of 18" or more, allowing easy accessibility, and the adjustable volume output lets you use the exact amount of lube needed. The Airless Spray System consists of five components. We will discuss the three main components here:



Consistent spray pattern covers the entire width of the gear.



Controller

Airless Spray Valve

### Airless Spray Valve

The heart of the Airless Spray system, the spray unit allows for adjustable lubricant volume output while producing a non-atomizing spray, reducing lubricant consumption. The duration of the spray is adjustable to minimize drippage.

### Controller

In reality, there are three controllers available for the Lincoln Airless Spray system. You can choose a model that serves one or two spray units and includes its own timer controls or you can select a model that works with your PLC controlling up to two spray units.



## Lube Filter Panel

Proper lubricant filtration is essential for smooth operation. Lincoln's Airless Spray Filter Panel is a complete unit with two filter units and dual pressure gauges. The panel design allows for filter units to be changed while the unit is in operation.

The system not only handles greases up to NLGI #2, it can spray some lubricants previously considered unsprayable. (Please contact your Lincoln systems house distributor for lubricant information.) The system's pressure monitor also shuts the lubricant off at a predefined setting, minimizing dribble at the end of a cycle.

The Lincoln Airless Spray System—it's more than new. There's absolutely nothing else like it out there.



**Model 85419  
Dual Filter Panel**

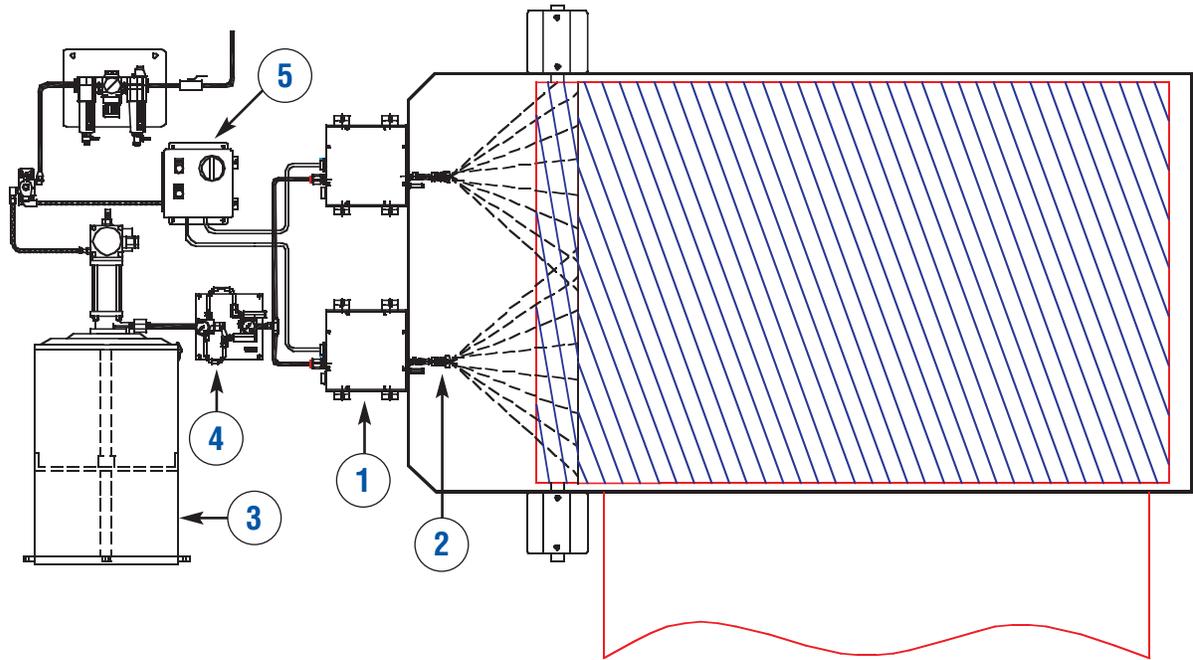


**Maintains consistent spray pattern while dispensing even the harshest of lubricants.**

## Features & Benefits

- ◆ Dependable, low-maintenance, cost-effective high-pressure system
- ◆ No freeze-ups; reduced plumbing, fogging and lubricant consumption
- ◆ Sprays a consistent pattern over a wide range of temperatures
- ◆ Choice of spray patterns puts lube where needed
- ◆ Spray widths of 24" or more from distances of 18" or more
- ◆ Adjustable lubricant volume output
- ◆ Sprays some previously unsprayable lubricants
- ◆ Adjustable spray duration minimizes drippage

# Airless Spray System Technical Data



## 1 85418 Airless Spray Valve

Model	Operating Voltage	Solenoid Valve Initial Current	Heater Current
85418	115 VAC	.18 Amps	1.80 Amps

## 2 Spray Tips

Model	Descrip.	Std Spray Tip	Std Tip with Swivel	Roto Clean Tip	Roto Clean Tip with Swivel*
252790	Retaining Nut	Required	Not Required	Not Required	Not Required
252792	Jet Stabilizer	Optional	Optional	Optional	Optional
85423-xxxx**	Std. Spray Tip	Required	Required	Not Required	Not Required
271579	Swivel Assy	Optional	Required	Optional	Required
252831	Body	Not Required	Not Required	Required	Required
85427-xxxx**	Roto Clean Tip	Not Required	Not Required	Required	Required

\* Discard tip retaining nut and protective cover, supplied with swivel assembly, when installing the roto clean tip on a swivel assembly.

\*\* Consult your Lincoln Representative for help in selecting a tip for your application.

## 3 Pumps

Model	Description
82050	50:1 pneumatic pump for 120 lb. drum
2004	75:1 pneumatic pump for 400 lb. (55 gallon) drum
2010	50:1 pneumatic pump for 400 lb. (55 gallon) drum
85480	FlowMaster® hydraulic pump for 120 lb. drum

See the Industrial Pumping and Equipment catalog for more pump options.

## 4 Filters

Model	Description
85419	Dual filter panel with operator valve to select one of the two filters. The other filter is isolated from the system pressure for uninterrupted service and easy element replacement.
84004	Single in-line filter

## 5 Controllers

Model	Description
254120	For single and dual Airless systems. Operates system by setting the time between lubrication events. Includes manual lube button and system alarm.
256228	For single Airless system with external initiate contacts with manual lube button and system alarm
254815	For dual Airless system with external initiate contacts with manual lube button and system alarm

## 2-Way Fluid Solenoid Valve

For multiple machine/single pump applications. See design guide (form #403172) for details.



# MC<sup>2</sup> Progressive High Pressure Divider Valves for the Gas Compressor Market

Natural gas compressors operate at higher speeds and pressures than ever imagined, and profitability depends on machines running 24/7 with minimal downtime. Lincoln's improved, re-engineered progressive divider valve can revolutionize your operation because it delivers oil reliably and consistently at higher back-pressures and lower lubricant flow rates.

Because it has the closest piston-to-bore tolerance fit in the industry, MC<sup>2</sup> minimizes internal leakage around the piston. It has a longer piston valve land area for better sealing and improved output performance. This ensures reliable and accurate oil delivery to all the critical compressor cylinder and packing points.

With its black chromate plating, MC<sup>2</sup> is the solution for offshore service and other areas where corrosion can be a problem, because black chromate plating is three times more effective than nickel plating.



## Markets

- Natural Gas Transmission
- Natural Gas Processing
- Oil & Gas Production
- Petrochemical & Refining

## Features & Benefits

- ◆ Improved piston-to-bore fit
- ◆ Bolt-on replacement for existing MC valves\*
- ◆ Improved stalling capability
- ◆ Black chromate plating for improved corrosion resistance (three times more effective than nickel plating)
- ◆ Early warning of inadequate lubrication

\* Proximity switch thread is M11X1. SAE version coming soon.



## Proximity Switch

A magnetic reed switch that attaches to divider valve for use in hazardous environments.

Model	Block Style	Switch Type	Switch Capacity	Conduit Connector	Connection Thread
87620	MC <sup>2</sup>	SPST	10 Watts 200 VDC 0.5 Amp	½" NPT(F)	M11X1

CSA Certification: Class I, Group A, B, C & D; Class II, Group E, F & G; Hazardous Locations

# MC<sup>2</sup> Progressive High Pressure Divider Valves

## Specifications:

Maximum Lube Points/ Assembly	Maximum Operating Press. psig / bar	Lube Inlet	Lube Outlet	Performance Indicator Port	Material of Construction	Seal Construction
16	6000 / 410	¼" NPTF(F)	⅜" NPSF(F)	⅝" - 24 UNF	Zinc plated steel	Viton

\* Can also be used as an alternate outlet port.

## MC Baseplate and Tie Rod Specifications:

Maximum Number of Outlets	Number of Divider Valves	Inlet Section	End Section	Tie Rod	Intermediate Section (Qty)	Dimensions	
						A	
						in.	mm
6	3	87955	87956	236640 (3)	87957 (3)	5.09	129
8	4			236641 (3)	87957 (4)	6.00	152
10	5			236642 (3)	87957 (5)	6.91	176
12	6			236643 (3)	87957 (6)	7.81	198
14	7			236644 (3)	87957 (7)	8.72	221
16	8			236645 (3)	87957 (8)	9.63	245

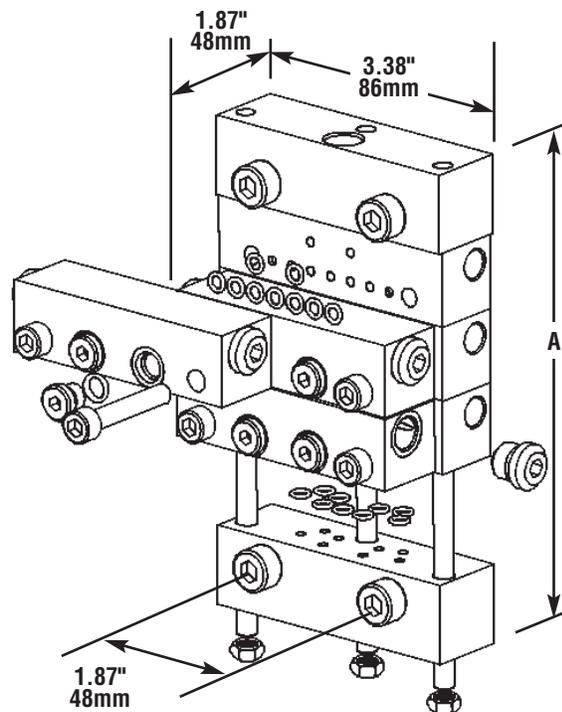
Note: Use 68645 closure plug (¼" NPT) to plug non-working outlets.

## MC Divider Valve Specifications:

Single Outlet					Twin Outlet				
Designation	Model Number		Lubricant Output per Outlet		Designation	Model Number		Lubricant Output per Outlet	
	Standard Model	W/Right Side Cycle Indicator*	cu. in.	cc		Standard	W/Right Side Cycle Indicator*	cu. in.	cc
06S	875061	—	.012	.196	06T	875062	—	.006	.098
09S	875091	—	.018	.295	09T	875092	—	.009	.147
12S	875121	875123	.024	.393	12T	875122	875124	.012	.197
18S	875181	875183	.036	.590	18T	875182	875184	.018	.295
24S	875241	875243	.048	.787	24T	875242	875244	.024	.393

**Model 874000 MC Bypass Block** Optional by-pass block permits addition or deletion of lubrication points without disturbing existing installations. Includes mounting screws and Viton gasket plate.

See Modular Lube catalog for MC accessories.



# Quickline® High-Pressure Hose Fittings

## Reduces Installation Time and Lowers Cost

The new style Quickline high-pressure hose studs offer versatility and flexibility at a reduced price from traditional configurations. The new style hose stud is designed in a straight tube (model 272401) and a 90° tube (model 272394) and can address virtually all installation challenges. The streamlined design offers a reduction in hardware with fewer connections, resulting in a cleaner installation and fewer potential leak points. The hose studs are reusable and do not require swedging, making replacement in the shop or in the field a cinch.

The compatibility and design coupled with the new style high-pressure Quickline fittings make for a quick installation, easy preventive maintenance and painless corrective maintenance. There are two styles of high-pressure Quickline fittings. The model 272659 is a 1/8" NPT straight tube that accommodates 1/4" OD

Quickline steel hose studs and is for inlets on Quickclub® divider valve blocks and lube points. The model 272658 has a 10mm thread and a check and is designed for use with 1/4" OD Quickline steel hose studs. The model 272658 is designed to be used with high-pressure hose at the outlets of Quickclub divider valves.

Both styles have a reinforced collet designed specifically to bite the steel hose studs and withstand the high pressures that will be recognized coming from pump to primary blocks and onto the secondary block inlets.

Adding even more versatility, standard Quickline fittings may be utilized with the new style hose studs at the lubrication point where pressure has been reduced by transfer through two Quickclub divider valve blocks.

## Features & Benefits

- ◆ Cost savings of nearly 50% over old style installation
- ◆ Accelerate the installation process
- ◆ Cleaner installation
- ◆ Easier to install, repair and troubleshoot
- ◆ Lower system cost
- ◆ Reduction of hardware
- ◆ Reduction of potential leak points
- ◆ Designed to work with Lincoln standard 1/8" high pressure hose

### Old Style



This photo depicts usage of adapters with checks, swivels, 90° fittings, swedge-on hose studs and reusable hose studs. Cumbersome.

### New Style



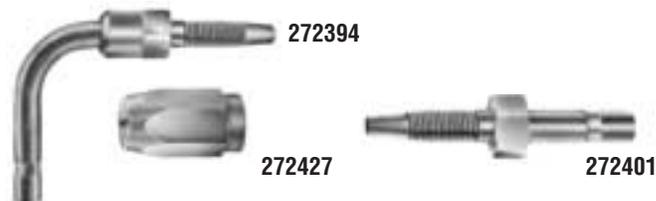
This photo depicts the new style quick connect, and both new style, 90° and straight quick connect hose studs. Easier and cleaner.



## Divider Valve Outlet & Inlet Adapters for 1/8" I.D. Hose Quickline Push-In Style with Check

Model No.	Description
272658	Valve outlet fitting with check
272659	1/4" tube x 1/8" NPT male straight fitting

IMPORTANT: Use the valve adapters for connecting the 1/8" high pressure hose (incl. hose stud with groove) to the main divider valve. The collet of the adapter is not knurled and has a wide collar.



## Hose Ends for Use with Quickline Fittings

Model No.	Description
272394	Hose stud, 90° (to be used with 272427)
272401	Hose stud, straight (to be used with 272427)
272427	Threaded sleeve



Lincoln Industrial Corp.  
One Lincoln Way  
St. Louis, MO 63120-1578

Phone 314-679-4200  
Fax 314-679-4359  
www.lincolnindustrial.com

Form 442957 (2/03)  
© Copyright 2003  
Printed in U.S.A.