

Modular Lube® Lubrication Systems

Introduction to Modular Lube



Built-in design options

When new technology calls for design alterations, the system designer can add or delete lubrication points without disturbing existing piping.

It's an economical system

Lincoln's Modular Lube single-line progressive system requires less piping and lower tubing costs at installation—and costs less to maintain or change when the need arises.

Patented by-pass block

This unique feature enables design engineers to extend any Lincoln Modular Lube system simply by removing the by-pass block and replacing it with a metering valve. When new machine accessories are added, Modular Lube stands ready to service any bearing point requirements.

Central Signaling

If a malfunction should occur due to a broken air line, low lubricant level, high pressure or line blockage, Lincoln's Modular Lube automatic lube system controls can be configured to signal the operator with a visual or audible alarm, and interlock contacts activate a machine shut-down circuit.

Plug-in concept

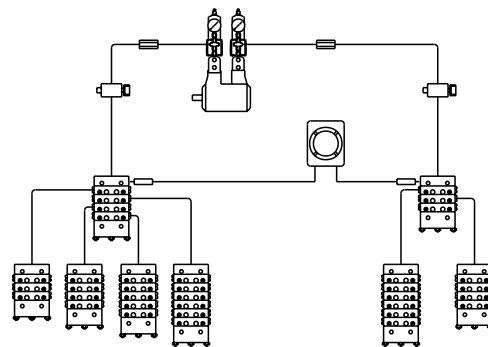
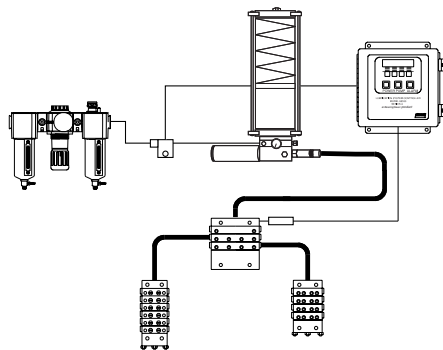
The Lincoln modular concept allows faster and easier changing of metering valve sizes. Modular pumps, reservoirs and timers make up a compact easy-to-mount lube system, simplifying the work of system designers and maintenance engineers.

Versatile interchangeable components

Divider valves, pumps reservoirs and controls can be used to tailor a Lincoln Modular Lube system to suit individual needs and/or requirements. Inventory costs are reduced to a minimum by purchasing modular components.

You're assured of positive stall

If a lubricating line plugs, any progressive lube system should shut down entirely—that's what it's designed to do. However, when a feed line becomes plugged on some systems, system pressure can cause lubrication to gradually slip by a valve piston, allowing the system to resume functioning—with one or more lubricating lines out of operation. Machinery bearings could run dry with disastrous results. Modular Lube has the closest piston-to-valve tolerances in the industry, virtually assuring you a positive stall every time.



UV, XL Series

Designed for standard industrial applications. UV and XL Modular Lube systems are fully automatic, centralized lubrication systems for use on all types of industrial machinery.

Type UV and XL are available in several divider valve sizes and outputs, and provides maximum flexibility in application. This is the most versatile of the Modular Lube systems. It can be installed on all machine tools (metal-cutting, metal forming), foundry machinery, wood-working and wood processing equipment, printing machinery, mining equipment and material handling machinery.

MC²-HP Series (High Pressure)

Designed for gas engine and compressor lubrication systems. MC²-HP series systems are designed for the gas transmission industry and are available with Viton® seals. The divider valves are compatible with either synthetic or petroleum-based lubricants. High-pressure capability to overcome back pressure with CSA-approved monitoring components available.

Modular Lube Divider Valves

Lincoln divider valve assemblies are comprised of three or more metering valves mounted to a segmented baseplate. The metering valves are available with single or twin outlets and may be externally singled or cross-ported. Extremely close tolerances between piston and valve body allow metering valves to deliver precise volumes of lubricant at high operating pressures.

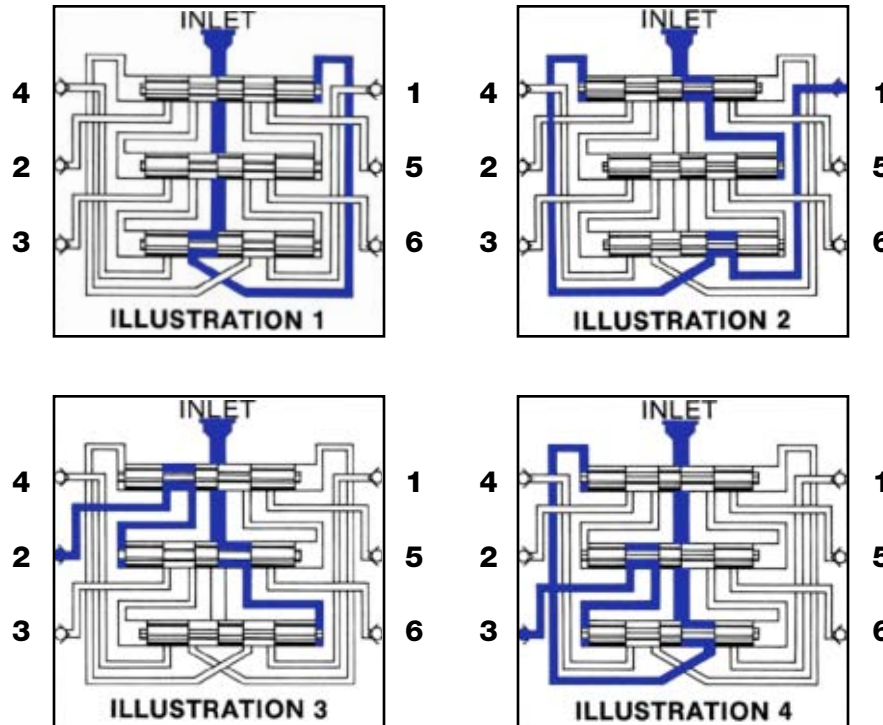


Illustration 1

The inlet passageway is connected to all piston chambers at all times with only one piston free to move at any one time. With all the pistons at the far right, lubricant from the inlet flows against the right end of piston 1 (top).

Illustration 2

Lubricant flow shifts piston 1 from right to left, dispensing lube from outlet 1. The shifting piston 1 directs the lubricant flow against the right side of piston 2 (center).

Illustration 3

Lubricant flow shifts piston 2 from right to left, dispensing lube through valve ports of piston 1 and through outlet 2. The shift of piston 2 directs lubricant flow against the right side of piston 3.

Illustration 4

Lubricant flow shifts piston 3 (bottom) from right to left, dispensing lube through the valve ports of piston 2 and through outlet 3. The shift of piston 3 directs lubricant through a connecting passage to the left side of piston 1. Lubricant flow against the left side of piston 1 begins the second half-cycle, which shifts pistons from left to right, dispensing lubricant through outlets 4, 5 and 6 of the divider valve.



Applications

Lincoln Modular Lube systems are popular in metal cutting and machining applications and for lubricating large compressors and other equipment in the oil and gas market.

Many machine makers specify that Modular Lube be installed right at their factory. Customers who have purchased machines without automatic lubrication can have Modular Lube systems retro-fitted in the field.