

High Speed Spindle Lubrication



- Improve spindle performance with precise lubrication.
- Reduce spindle repairs and downtime due to lack of lubrication.
- Improved the workplace environment through the reduction of oil mist.
- Lower operating temperatures.
- Increase spindle reliability over mist systems through cleaner air oil.
- Improve machining and finish due to precise oil delivery.
- Reduce vibration and noise.
- Reduce oil consumption and cost by 60–75% compared with mist oilers.
- Air/Oil is capable of higher air pressure and flow when compared with mist.
- The spindle, wheel head and dresser run cleaner and last longer.
- Reduce contamination of coolant.

Air/Oil Lubrication Systems deliver high-efficiency lubrication and cooling for high-speed spindles and other surfaces requiring accurate oil deliveries. The advanced design delivers precise amounts of lubricant and eliminates residual drift of oil fog or mist during operation.

Air/oil lubrication allows for minimal lubricant delivery on a continuous basis, reducing oil consumption and keeping the bearing surface clean and free of contaminants. The system can be retrofitted to high frequency spindles designed for mist or air/oil injection systems and offer value and features found on more expensive systems.

The system utilizes a specially-designed positive displacement injector (PDI) with oil outputs to a close tolerance level down to 0.01cc/cycle. This permits exact oil volumes to be discharged into an air mixing valve. Controlled air and oil is then discharged through clear plastic tubing to critical bearing points.

A small intermittent discharge from injectors flows along the inside tube wall and stretches out along the length of the tube. Air expansion at the nozzle tip delivers controlled spray (not mist) to bearing for optimum performance.



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SureFire PDI

The SureFire PDI lubricator is a robust, electric motor-driven gear pump, with timer and controller versions available. Pressure and low-level switches are provided to monitor lubricator operation and reservoir oil level.

Air/Oil Injector Block

Available in one to eight injectors, the air/oil injector block has an individual flow needle valve. Outputs range from 0.01cc to 0.40cc per cycle.

Inline Oiler

This self-contained compact unit with metal bowl and manual drain provides the first oil filtering in the system.

Air Filter/Regulator

This assembly comprises a 5-micron primary filter with a 0.3-micron coalescing filter, pressure regulator and air pressure gauge. Both are equipped with auto drain metal bowls.

