BOELUBE®

A BOEING DEVELOPED LUBRICANT

BOELUBE LIQUID

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The Orelube Corporation holds an exclusive worldwide license from Boeing Management Company to manufacture and market the **BOELUBE®** series of lubricants.

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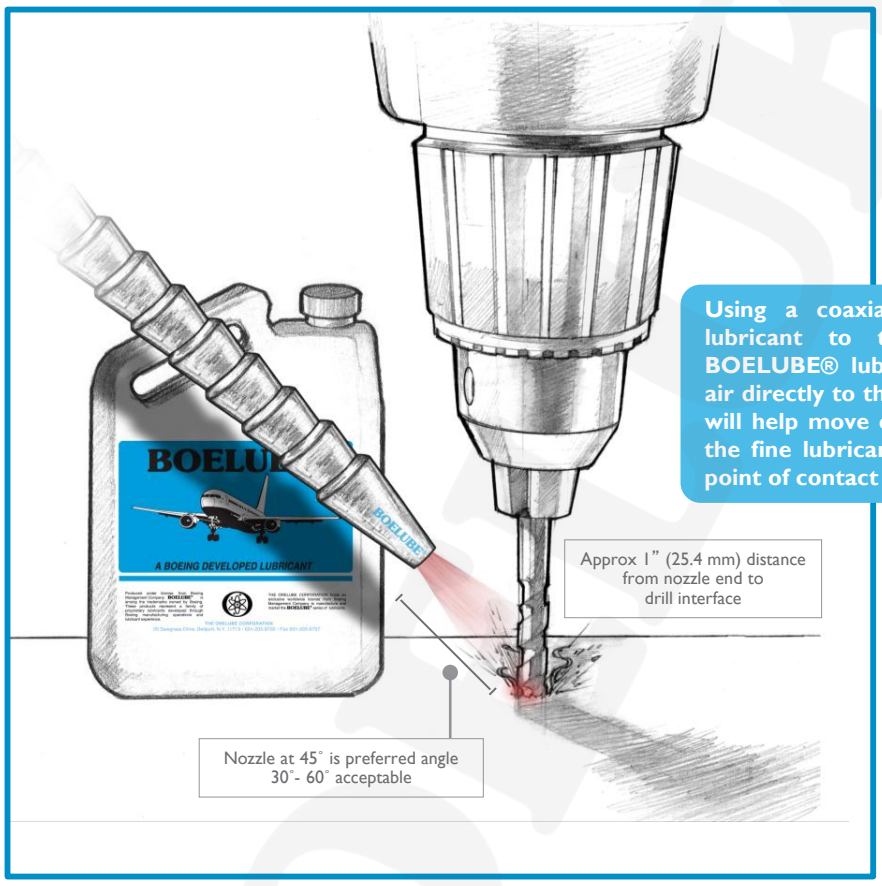
In the near dry machining process, **BOELUBE®** Liquid can be delivered as fine droplets or spray through one or more nozzles positioned accordingly around the cutting tool. Delivering the **BOELUBE®** Liquid as fine droplets to the cutting edge is necessary in order to reduce friction between the chip, tool, and workpiece, and prevent chips from adhering to the tool cutting edge.

The near dry machining processes using **BOELUBE®** requires continual reapplication of lubricant to the tool cutting edge and wear surfaces. This can be accomplished externally on shallow drilling, reaming and tapping operations, on milling cutters, and on band and circular saws.



Using a coaxial supply of compressed air and lubricant to the nozzle, the nozzle directs BOELUBE® lubricant droplets in the compressed air directly to the cutting edge. The compressed air will help move chips from the tool cutting edge as the fine lubricant droplets form a thin film at the point of contact to reduce friction.

In near dry machining the goal is high efficiency, which is achieved as a result of using a minimal quantity of lubricant. Typical **BOELUBE®** Liquid usage is about 1 oz (30 ml) per hour of machining time, which is best determined by the particular machining process and workpiece composition. Because minimal quantities are used and consumed for the most part in the machining process, **BOELUBE®** Liquid produces near dry workpieces and chips with little or no clean-up or related costs and no disposal costs.

Historically, the metalworking industry has used metalworking fluids by flood application in machining operations. But because the costs associated with use, management, and disposal of flood coolants has risen over the years, in part due to increasing federal, state, and local regulations aimed at worker safety and fluid disposal, there has been a growing trend to utilize methods requiring less metalworking fluid to reduce cost, protect the environment, and improve and protect worker health, without sacrificing productivity and quality.