

PASTE LUBRICANTS

LIQUID LUBRICANTS

SOLID LUBRICANTS

BOELUBE SOLIDS

High Performance MQL Lubricants



BOELUBE®



A BOEING DEVELOPED LUBRICANT

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BOELUBE LUBRICANTS FOR NEAR DRY MACHINING ■■■

One of the earlier uses of near dry machining was in aircraft manufacturing. Freon® gas was used in three distinct areas of the riveting process – drilling, rivet insertion, and rivet-head milling. Because of the undesirable effects of Freon® gas on the ozone layer, Boeing manufacturing research and development engineers introduced an alternative method using BOELUBE lubricant compositions to efficiently lubricate and cool tools by preventing heat buildup, while greatly reducing the reworking after drilling that had been necessary with Freon® because of exit burrs, oversized holes, and a rough finish on the inside surface of the holes

BOELUBE lubricants were used in drilling, reaming, and coldworking of fastener holes in aircraft wing skins; installation of wedge-head lock bolts; lubrication of hand drills; and on machinery that automatically drill rivet holes and install rivets on large sections of airplanes. It was shown that the application of minimal quantities of BOELUBE lubricant could reduce friction, speed production, increase tool life, and improve surface finish and hole quality in a number of machining operations.

BOELUBE Solids are extremely cost effective in single point work such as drilling and reaming.



TYPICAL PROPERTIES ■■■

70200

- Solid
- White
- Insoluble in water
- Melt Range: 90-110F (32-43C)

70201

- Solid
- Pink
- Insoluble in water
- Melt Range: 90-110F (32-43C)

PRODUCT BENEFITS ■■■

70200 / 70201

- High lubricity
- BAC Specifications
- High oxidative stability enables long shelf life
- Minimal lubricant usage reduces worker exposure



MATERIALS ■■■

	70200	70201
Alloy	✓	✓
Aluminum	✓	✓
CFRP	✓	✓
Composite	✓	✓
Copper	✓	✓
Glass fiber	✓	✓
Kevlar	✓	✓
Stainless steel	✓	✓
Titanium	✓	✓
Wood	✓	✓

Certifications

BOEING

BAC Boeing Process Specifications
5008 • 5063 • 5540 • 5578 • 5657

AIRBUS

A2MS 569-001 Rev B
Lubricants/Coolants

Applications

Drilling



Tapping
Reaming



Forming



Milling



And many more...

BOELUBE SOLIDS

Technical information

FOR DRILLING AND REAMING ■■■

A drill will have cutting edges and straight or helical grooved or flutes, which allow for movement of chips and cutting fluids/coolants. Drill wear is not proportional to the number of holes drilled, but occurs at an accelerated rate.

A reamer is a rotary cutting tool (similar to a drill) with one or more cutting elements, used to enlarge to an exact size and impart a smooth finish to, a previously drilled hole. Reaming is essentially a finishing operation; Drilling can be characterized as is a rough form, whereas reaming is the exact form.

Improve tool life by reducing heat build-up by applying BOELUBE push-up tubes or individual blocks to the tool before start-up in belt, disc and wheel grinding operations.



BOELUBE SOLIDS ■■■



- Non-petroleum
- Non-sulfur
- Non-phosphorus
- Non-silicone
- Non-paraffin wax
- Non-halogen
- Non-corrosive
- Contain no water
- Used in aerospace and other manufacturing industries

BOELUBE SOLIDS PRODUCTS LIST ■■■

70200-13	White Solid	Push Tube 1.6 oz - 45 g	50 per Box	300 per Case
70200-40	White Solid	Push Tube 3.5 oz - 99 g	32 per Box	192 per Case
70200-00	White Solid	Cartridge 14.5 oz - 411 g	12 per Box	24 per Case
70200-14	White Solid	Block 4 oz - 113 g	64 per Box	192 per Case
70200-18	White Solid	Block 2 oz - 57 g	30 per Box	180 per Case
70201-13	Pink Solid	Push Tube 1.6 oz - 45 g	50 per Box	300 per Case
70201-40	Pink Solid	Push Tube 3.5 oz - 99 g	32 per Box	192 per Case
70201-00	Pink Solid	Cartridge 14.5 oz - 411 g	12 per Box	24 per Case

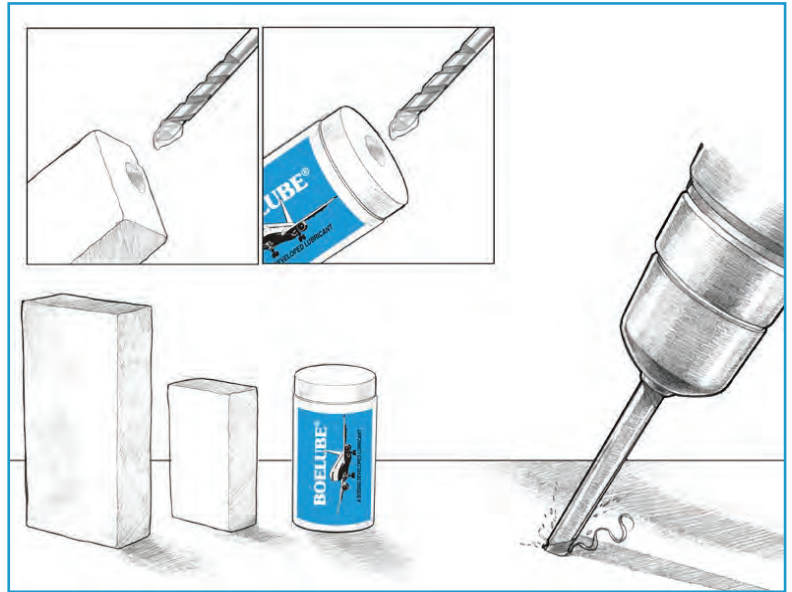
BOELUBE SOLIDS ■■■

Save time and money while being environmentally responsible.

Historically, the metalworking industry has used metal 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.

A metalworking lubricant should impart sufficient lubricity between the tool and the workpiece to cause a significant reduction in friction to occur. BOELUBE is a technologically advanced lubricant that significantly reduces friction (one of the major elements in generating heat during the material removal process).

In MQL machining the goal is high efficiency, which is achieved as a result of using a minimal quantity of lubricant. Because minimal quantities are used and consumed for the most part in the machining process, BOELUBE Solids produce near dry workpieces and chips with little or no clean-up or related costs and no disposal costs.



BOELUBE solids come in a variety of shapes and sizes to accommodate ease of application in drilling, reaming, abrasive belts, deburring, grinding wheels, band, circular and hand saw blades.

Typically the BOELUBE solid is applied to the tool before use. In a block or tube form, it can be hand held and a drill bit can be touched to the solid before drilling or the solid may be swiped across the surface to be drilled. Only a minimal amount is required when drilling through thin material.

Drilling is one of the most widely used machining processes to produce circular holes in metallic and non metallic materials. A drill is a rotary end-cutting tool, with the most common type being a twist drill. The drill, attached to either a stationary machine or hand held, is used to originate or enlarge a hole in a solid material.

COST SAVINGS ■■■

Cost savings are derived through longer tool life, better surface finish, increased productivity, reduction in lubricant usage and subsequent cleaning and disposal costs, reduced environmental impact, and improved housekeeping.

WORKER FRIENDLY ■■■

Manufactured from personal care ingredients, BOELUBE Solid is dermal non-irritant and biodegradable.

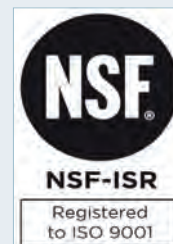


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Specialty Industrial Lubricants Since 1958

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