Accu-Lube®

WITH ABRASIVES

Abrasives and Accu-Lube® work very well together. The methods of application and use of Accu-Lube® do not relate to many common practices with abrasives and require some different approaches. Normally we apply waxes in order to retard loading or coolants to carry away heat. Accu-Lube® actually works with the abrasive grain, (cutting tool), reducing the forces to the point that not enough heat is generated to weld a chip even in low welding materials such as zinc.

The major consideration in the use of Accu-Lube® with abrasives is in understanding the need for care in the amount that is applied. Over-application can erase all benefits. Excessive amounts of lubricant on mills or saws or other tools that produce larger chips is merely wasteful because the heavier chips can carry away the excess. The micro chips produced with abrasives are light enough to be retained loosely on the surface of the belt or wheel by the surface adhering properties of Accu-Lube® , (applied to carbide saw blades running at 15,000 SFM it doesn't "throw-off" the teeth). Chips retained loosely on the surface will interfere with the cut and generate heat. One molecular coat of Accu-Lube® on an abrasive application will last for thousands of revolutions.

Example:

A major cutlery manufacturer using 220 grit belts applies solid Accu-Lube® twice a day — on a new belt in the morning and a re-application at noon. Double belt life.

Example 2:

On regrinding carbide wheel cutter at major auto manufacturer with heavy removal rate, the tool grinder identified 25 minutes of effectiveness from one application of solid Accu-Lube® .

With that background we can now consider specific applications.

Abrasive Belts and Discs.

As a general rule, Accu-Lube® will double belt life, or better, but the potential benefits extend beyond belt life. By reducing the cutting forces, the abrasive actually cuts faster and often increases production. The lubricant also alters the scratch pattern. The abrasive penetrates better producing a sharper, deeper scratch. In many materials equal cut times are developed with grits one or two grades finer, another savings. Accu-Lube® reduces loading of gummy materials such as aluminum or stainless so well that we often demonstrate on a discarded belt. It will actually unload and work well again. This is also true with 7″ and 9″ type "C" and "D" discs.

Application of Accu-Lube® to the belt or disc will vary with the operation. Using the solid form like a crayon we suggest an "X" be drawn on a disc. The solid form is very effective if lightly dressed on a belt. For heavy operations in a production mode we suggest the liquid Accu-Lube® delivered to the belt with an Accu-Lube® applicator; model LS2010-4FF with a foot control or model LS2010-9 with a built in solenoid valve. The finer the grit, the less you use.

MORE IS NOT BETTER

Unwoven Nylon Abrasive Wheels.

On these deburring and finishing products the results with Accu-Lube® are very dramatic. The life of these products is multiplied and the cut is increased, increasing production — again use very little.

Grinding Wheels — Tool and Cutter.

Accu-Lube® is very effective in tool and cutter grinding operations. A very light molecular coat on a cup wheel reduces heat generation, reduces wheel wear, improves finish and eliminates burn. This is true on aluminum oxide or diamond wheels with either vitrified or resin bond. A light touch of solid Accu-Lube® will last many thousand revolutions. With operations that have a dressing action on the wheel such as sharpening the faces on a pull type spline broach, we suggest a very light continuous coat of Accu-Lube® delivered only with an Accu-Lube® applicator. Nothing else will deliver the lubricant in small enough quantities — 1/10th to 2/10th ounce per shift for heavy grinding.

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On other forms of grinding (surface, cylindrical, etc.), all of the same principles apply. Use very little of the form you like.

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Design and engineering support is available for systems installations. Please consult factory.

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