



Recommended Cutting Oils for Barranca Slab Saws

Never run a diamond blade dry as this can immediately damage your blade. Use one of the oils/coolants recommended below. Coolant should be kept clean and below 100° F. Sludge should be removed periodically and replaced with fresh coolant so that your cuts will be clean and your blades will not be damaged.

Shell Diala Ax

Non-hazmat replacement oil for electrical transformer cooling. Excellent lubricating properties for blades and saw parts. Flushes sludge from rock easily, degreases easily, and sludge settles in saw tank well. In Southern California Shell Diala Ax can be purchased from Dion and Sons, Inc. www.dionandsons.com

Chevron Texaco Bright-Cut

A chlorine-free cutting oil with reduced sulfur and fat content. Light in color and low in odor.

Hyvolt II

Electrical transformer cooling oil. A highly refined petroleum product, available from some non-Shell oil distributors, typically only in 55 gallon drums. Same properties and performance as Shell Amber Neutral 100.

Chevron Superla #5

Food grade mineral oil. Non-hazardous lubricating oil for bakeries, breweries and food processing machinery. Good lubricating properties, degreases and settles sludge well. Can go rancid over time (1 year or less).

AVATEC 80

Food grade mineral oil, excellent for slab sawing in all our slab saws.

Texaco ALMAG

Pure petroleum based machining cutting oil. Good for slab sawing but very strong odor. Often the cheapest priced oil available but odor is tough to eliminate.

Roc Cut

Roc Cut from Diamond Pacific is a new synthetic water soluble cutting additive with rust inhibitors. Mix 30 to 1 (water to Roc Cut).

Roc-Oil

Roc-Oil from Diamond Pacific is a oil coolant for heavy duty cutting. Provides excellent blade protection and will not cause rust to your blade or saw.



Smokey's EZ Cut

Synthetic water based cutting agent (mix ratio: 2 ounces per gallon)

Water

Water is not recommended as a cutting fluid as it is a coolant only and does not promote good cutting performance. Water can shorten blade life and often frequent blade sharpening may be required. However, it can be used if a water soluble synthetic agent/additive such as Smokey's EZ Cut or Diamond Pacific Roc Cut is used to extend blade life and promote improved sawing. Even with additives, frequent blade sharpening may be required. These additives have rust inhibiting properties but oxidation can still result over time as mist and heat can cover the blade arbor threaded shaft and jam nut with water during and after sawing. For this reason, if water with or without an additive is used as a cutting fluid, the user is advised to use water displacing WD-40 sprayed on the blade core and shaft/nut after every cutting session to inhibit rust formation.

Under NO circumstances should any of the following fluids be used in our lapidary saws:

Automotive Antifreeze Coolant

Ethylene glycol based automotive antifreeze and its vapors are hazardous and toxic. Propylene glycol based antifreeze is non-toxic but has practically no lubricating properties; it functions as a coolant only and its use will lead to rapid blade wear and dulling.

Automatic Transmission Fluid

Does not have adequate lubricating properties for our saws; vapors are considered hazardous and toxic.

CNC Machining Fluids

Water soluble synthetic coolants (i.e. Valenite or Cimtool) are often mixed in a 20:1 blend with water. Fluid vapors are considered hazardous. These fluids do not have adequate lubricating or rust inhibiting properties for the cast iron and steel parts in our slab and trim saws.

Diesel, Heating Oil and Kerosene

Very flammable with a low flash points. At least 3 of our commercial cutting customers in Arizona and Pacific Northwest have burned down their shops using these fluids. Can be very tough to degrease the residue and aroma out of the cut slabs. These fluids are cheap, but very hazardous