





intage vehicle enthusiasts seeking to source a restored 1948 Delahaye 135M cabriolet by coach builder Franay, a 1901 Petzerlt & Keyser Opera Coach or maybe even a 1917 Heider C1939 tractor need look no further than the Guild of Automotive Restorers in Innisfil, Ontario.

Started in 1991, the company has restored more than 2,500 cars, trucks and other vintage vehicles, says President David Grainger. "I've been asked repeatedly, 'how do you do that?' There's no great mystery involved, just a lot of experience."

One worker with a wealth of experience is Albert Zuger, coach builder and lead metalworker. "We do all the body work and structural stuff and make, fabricate, machine and weld anything that needs to be made,"

One of the tools he uses to restore vehicles that might have six-figure price tags is a manual Brobo cold saw that the Guild of

# **CHILLIN' IN A CRUISER**

## **AUTO RESTORER USES A COLD SAW TO CUT OUICKLY AND ACCURATELY**

Automotive Restorers purchased from Ken Bergman and Associates LLC (KBA Saw) in 2017. The importer and direct distributor for Victoria, Australia-based Brobo Group is in Oak Lawn, Illinois.

Zuger describes the cold saw as "a pretty amazing machine that has made our lives a

On the manual version, the operator

controls the saw head's speed and force as it cuts through the material, while a computer controls the saw head's speed and force on the semi-automatic version.

The Brobo cold saw is suitable for cutting thin-wall tubing to large, heavy material such as solid bar up to 3 in. in diameter, depending on the saw blade, Zuger says. The common workpiece materials include stainless and



carbon steel and aluminum. "I can cut 16-gauge, 18-gauge thin-wall steel and stainless steel tubing all day with this."

#### **CUTTING ONE'S TEETH**

The blade for those applications has a fine-tooth configuration, he adds. "The tiny teeth, however, aren't going to do such a good job on a thick material, like, if I'm cutting down a piece of stock to put in the lathe to machine a part out of it."

Dan Bergman, who manages sales at KBA Saw, notes that a coarse-tooth blade is available for sawing solids and material with heavier walls and a blade between fine and coarse is suitable for everything else. The coarser the teeth are, the more room there is in the gullets to prevent the blade from loading.

Bergman says cold saw blades cost about 30 percent more than other types of saw blades, but they can be resharpened repeatedly. In addition, the cost of a resharpened







Left, Because the finish cut with a Brobo cold saw is square, a part sawed with a 45-degree miter cut can be accurately assembled. Above, the Brobo cold saw is suitable for cutting thin-wall tubing to large, heavy material, depending on the saw blade.

### **SAWING**

blade is about 85 percent less than a new one.

"They'll last a long time before they get dull," Zuger says. "When they get dull, you send them out to be resharpened, and you can resharpen them over and over and over again until they almost go away."

The Guild of Automotive Restorers uses black oxide-coated blades made of highspeed steel. There are blades that are coated with titanium or titanium nitride for toughto-saw materials, Bergman notes, or are uncoated for sawing aluminum.

Zuger explains that a variety of options are available to cut metal to the needed size, but all are not equal. "If you're in a pinch and all you have is an angle grinder and a cutoff wheel, you can do that and that's fine, but then you have a lot of prep afterwards to make everything fit."

He adds that an abrasive saw can also be effective, but the cuts rarely are perfectly straight, and the process tends to generate large burrs. Fabricators and part manufacturers commonly employ band saws, but they cut slowly, and the cut quality is not as good as can be obtained with a cold saw.

#### **CONSISTENT CUTS**

"The beauty of a good cold saw is that you end up with almost a milling machine quality cut with very little burr, so there's not a lot of



4 4 The beauty of a good cold saw is you end up with almost a milling machine quality cut with very little burr. 7 7

Albert Zuger, Guild of Automotive Restorers

work you have to do afterwards," Zuger says. "You dial in your angle, and it cuts it every time with almost no burr, and it cuts quickly and relatively quietly."

Bergman concurs that the Brobo cold saw

provides accurate cuts that eliminate secondary operations. "It's perfect for a fab shop."

In addition to being quiet to operate, the Brobo cold saw does not generate a variety of unpleasant conditions, Zuger says. "There's no smoke. There's no sparks. There's no dust or cleanup afterwards." FFJ

Guild of Automotive Restorers,

905/775-0499, guildclassiccars.com.

Ken Bergman and Associates LLC (KBA Saw), 800/956-1313, brobousa.com.