



Proto-Fab, Inc. Routs A Niche in Instrument Panels

Product Spotlight:

Gerber Sabre 408
Gerber Dimension 200

Proto-Fab, Inc
Elkhart, IN

Quick! How many things can you think of that require an instrument panel? A car, a truck, a boat... How about mining equipment, buses, and garbage trucks? All of these and more must provide a user-friendly place where the operator can reach for the various switches and gauges. Via an improvement in routing technology, Proto-Fab, Inc. has been able to fully explore these markets.

In Elkhart, Ind., a city halfway between Detroit and Chicago, this small company of 20 employees introduced the Gerber Sabre™ 408 router into its manufacturing operations in 1996.

Vice president and owner Glen Harmison commented on how Gerber's high-speed, high-precision machine has affected his business since.

"We have been manufacturing plastic instrument panels since 1989, and our four Sabre 408 routers have expanded our business so much in the time we've had them,"

Harmison noted. "Whole new markets have opened up for us which were beyond our capabilities before because we didn't have the speed or the ability to handle large enough pieces of material. Trying to rout those large pieces by hand was impossible."

Owing to the fact that many of the instrument panels are engraved and backlit so the legends will be visible in darkness, a Gerber Dimension 200® tabletop router performs engraving eight to twelve hours a day. Harmison explained that the Dimension is ideal for engraving because it's so precise. Using a scanner, logos or legends for the switches can be easily scanned in and then engraved.

Some of the new markets the company is serving as a result of investing in Gerber technology include recreational vehicles; airport luggage trucks; and industrial marine applications like fishing boats and oil rig service boats.

For example, Proto-Fab produces a large instrument panel for motor homes. Several compound curves and angles are routed into a 16 x 48-inch wide piece of 3/16-inch thick ABS plastic. The gauges, switches, heater controls, radio, headlight switch, etc. fit into the routed areas. Legends are silk-screened on the panel for the mirrors and any other accessories that aren't already marked with their own legends. It takes five minutes to rout one panel, but six at-a-time can be cut on one router – which reduces 30 minutes' worth of work down to five minutes.

Harmison attributed this increase in productivity to two factors. "First, productivity has gone up tremendously because we've been able to utilize material more efficiently; and second, the



routers are so fast it would probably take three or four people working by hand with pin routers to accomplish the same as one Sabre.”

He also described smaller panels created for emergency electrical generators. The six- or eight-inch square panels accommodate an on/off switch, hour meter, silk-screened legends for oil pressure and water temperature gauges, and the company's logo. To further expedite the process, Proto-Fab purchased a GERBER EDGE® digital color imaging system to make positives for silk-screening.]

The holding power of the T-Vac™ vacuum table option , the router's speed, and its capability to adjust the depth automatically from the keypad after the router has been started are among Harmison's favorite features of the Sabre 408 . He cited this depth adjustment feature as the most important because much of the material varies in thickness from shipment to shipment. Even a few thousandths of an inch makes a big difference when the job demands routing right down to the face of the material, he explained.

According to Harmison, his customers have also noticed a difference. “The quality is much more consistent now. Our customers know every part is going to be exactly the same every time, whereas before you couldn't say that,” he reported.

Both routers run all day, for about six hours, which is enough to complete 100 to 150 jobs per week. Harmison estimated that the first two routers paid for themselves in about 18 months. He stated, “I think we've saved about 20% on our material costs alone just by being able to buy bigger sheets and get more parts out of each sheet than before.”

Actually, before deciding to purchase a Gerber router , he researched several different router companies. He recalled, “Gerber routers were highly recommended by the people who had them. The equipment's reputation for reliability has proven to be well deserved. We haven't even needed any service or technical support.”

Proto-Fab faithfully uses Gerber router bits , too. “We tried other, more expensive brands, but they weren't as sharp and didn't last as long,” Harmison confided.

“What we do is unique compared to other router users,” he added, “so we've trained ourselves to negotiate all the curves, holes, back routs, and different profiles.”

With these resources and so much ingenuity, Proto-Fab, Inc. is sure to carve itself more and more niches.