Making It

Odds be damned, there are always those who find ways to succeed. Here are a few of their stories.

DAN BEAULIEU

LOOK AROUND, AND you'll find people who are making a difference. Like the inventor who has devised a way to cut plating chemistry use to 15% of the norm. The same person can show us how to make money selling $15 boards.

Or the innovator who teaches how to plate up to 20 oz. of copper and consistent 0.002″ lines and spaces – without equipment any newer or more sophisticated than what's on your floor right now.

Or what about the PCB shop that has gained over 300 new customers in the past three months? Or another that maintained profitability simply by delivering product on time, all the time.

There is a firm – a group of investors, actually – that follows the old dictum of buying low by snatching up failing shops. Another company, founded less than 12 months ago, is selling boards at a run rate of over $6 million a year and growing by leaps and bounds.

No matter how tough things get, there are always people and companies that find ways to make it. It never ceases to amaze how innovative people can be when they are determined to succeed, odds be damned. In the next few months we will discuss some of these stories of people who have found a way to make things happen. Their "secret": They keep their minds open and their thoughts flowing. I am always on the lookout for new ideas, people willing to take a risk, people who find a way when others say, "it can't be done."

Do you think ours is a closed-minded industry? When I try to relate a new idea or concept, more often I hear why it won't work or what's wrong with the idea, rather than how it can be applied to one's company. The skeptics – and there are plenty of them – take particular delight in pointing out the flaws of a new strategy rather than thinking about how to take advantage of it. Yet innovation always wins out. It's neither easy nor simple, but from a great idea coupled with persistence comes success.

Bob Spain is an inventor in a board guy's clothing. For 20 years he owned a small shop in Massachusetts. He did OK, but never really struck it rich. Bob is one of those people who would rather invent things than run a business. A few years ago, he invented the Efficient Electron Exchange unit, a horizontal plater capable of depositing 25 µm in a hole in 10 minutes. This system can panel and pattern plate. Teledyne found the machine sufficiently innovative to buy it. Based on a royalty plan, Bob's future looked pretty rosy, rosy enough to shut down the shop and work on other ideas. He is in the final stages of developing a machine that will plate holes either conventionally or by direct metalization. I saw the beta site and was impressed by just about everything about it. With a footprint of a table saw, this unit will handle 50 panels every 10 minutes, or about 300 panels an hour, and it uses just 15% of the chemistry normally required. Estimated price: about $80,000.

Bob was also the first to explain to me how boards can be built for $15. Here's where the fun starts. I know a few readers are using this strategy. But let me say this up front: The more I tell people about this, the more I hear that it's no big deal. Actually, I think it is one of the more innovative and elegant solutions to come down that lonesome highway. That said, what's the trick? Nesting, or fitting several different part numbers on a single panel. Say a company receives a number of small-volume, quickturn jobs; for instance, five part numbers with three pieces each, to be built in three days. For kicks, let's say they are from different customers, too. Using Bob's nesting software, the part numbers can be batched by communality – by common technology and, more importantly, compatible sizes – and fit on one panel. Double-sided boards can share space on a multiplayer panel. Then the panel is processed as usual. It's that simple.

Now do the math. For the sake of simplicity, let's say there are three double-sided boards to build in three days at $15 each, with tooling charges of $250 for each part number. To build this as a single job, at even the most competitive price, the order would cost about $300, tooling included. Pretty meager, isn't it? And for yield purposes, you would still build two panels. Using the nesting software, however, five of this part number could be put on a panel (remember there are many variations and this is a very simple example), and then by multiplying everything by five, you have a $1,500 panel filled with $15 boards.

Here's a bet: Before you figure out how this could work for your company, you will come up with the following questions:

1. What if one of the part numbers is put on hold?
2. What if I scrap the panel?
3. What if there is a re-order of only some of the part numbers?
4. What will the customer say?
5. What about multilayer boards?
6. What about high-tech boards?
7. Can you give me more time to think of other reasons why this won't work?

Take all the time you want; many people have in the past two years. Want to know more? Contact me. PCD&M

DAN BEAULIEU is a founding partner in D.B. Management Group (dbmpcb.com). He can be reached at 207-873-0793; danbbeaulieu@aol.com.