CTM Labeling Systems

7 ENGINEERING SECRETS TO STRESS FREE LABELING

ED SCHNEIDER

Introduction:

We hear it all the time: It's just a labeler. How hard can it really be?

Indeed, when a labeling machine does what it's supposed to do, the very functioning of its work becomes seamless, streamlined routine, *something we tend to take for granted like a sunny morning on a beautiful summer's day.*

We usually don't even think about labeling until there's a problem – a newly purchased machine fails to label the unique shape of a specialty marketed bottle, a legacy applicator can't accommodate adjustments on the fly to meet a rush custom order, a warping machine subtly shifts a label's position just enough to destroy an entire shipment.

That's when you want to pull your hair out, swear like a shipwrecked sailor, wish you'd never been born.

Because there's actually a lot happening under the surface of a labeling operation to slap a sticker on a bottle, literally hundreds of thousands to millions of bottles, perfectly and consistently each and every time. "Once you start peeling back the onion, you realize how much can go wrong in a labeling setup," states Ed Schneider, Director of Sales & Marketing for CTM Labeling Systems. **"The value of a well-thought-out, detailed design to a manufacturing process cannot be overstated."**

And since products these days come in all sorts of shapes and sizes, in different materials and temperatures, with a wide variety of label thickness, adhesives, and styles, the challenges and logistics to labeling have become increasingly complex.

When it comes to navigating that complexity, great engineering is a labeling manufacturer's compass and map. It not only charts the course, but can reorient a project as new challenges inevitably present themselves.

The secret to mastering that design is in the details. These 7 critical factors are key to engineering a design that can flexibly navigate complexity and deliver a solution that's so seamless you forget it's even there.

The Challenge:

The problem is that so many labeling providers today sell out-of-the-box, generic approaches with minimally engineered design. **Many vendors on the market are little more than assembly houses that don't build customized solutions in-house.**

Their machines are not engineered to be adaptive to the uniqueness of your product nor the challenges of the future. *You're sold a bag of goods that lacks the customized control needed for a seamlessly pain-free labeling experience.* The system doesn't fully accommodate your needs today, nor can it evolve to meet the challenges of tomorrow.

This whitepaper will explain 7 secrets you should master to achieve the perfect labeling design, one that runs so smoothly you hardly notice it's even there.

Engineering: An Inside Look at the Secrets that Make It Tick

For labeling to be seamless, numerous factors need to come together. Making it all work with minimal bumps in the road requires beautiful engineering. In the end, the design can make or break a labeling system. Here are 7 secrets to achieving labeling that runs like a dream.

1. Keep It Simple, Silly – the Benefits of User Friendly Design

Often, it's the simplest enhancements that prove to be the most effective in optimizing a manufacturer's bottom line.

Beautiful engineering doesn't always have to be complex. More often than not, it's a modest tweak – a few lines of efficient but essential code that repositions a critical button to the home screen, for example, or a special alignment of a conveyor that practically provides chiropractic therapy for the bad back of an operator.

Because at the end of the day, the primary purpose of a well-engineered solution is to take great care of that operator.

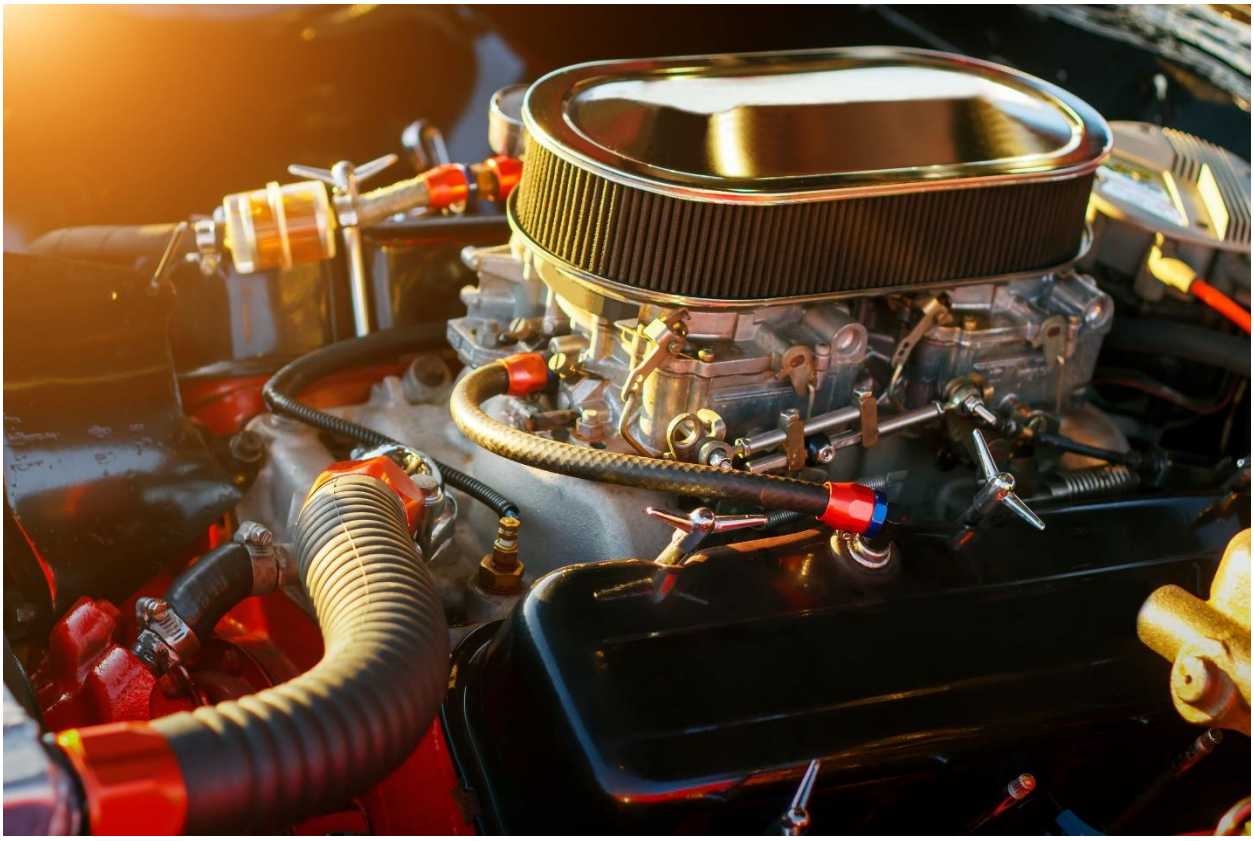
"When a system's not designed simply enough to be user-friendly, it inevitably will result in some serious setbacks," says Dennis Kotowski, Senior Tech Coordinator at CTM Labeling Systems. "If the maintenance guys don't like it because they don't understand it, they won't always take the best care of it. This can create a real domino effect and ruin an otherwise great system."

After all, it's the operator who sits back in the driver's seat, day in, day out. If he or she doesn't absolutely fall in love with the machine and embrace the core physics of its functioning, they won't do the behind the scenes care necessary to keep it online, nor optimize the system to deliver peak performance.

2. The Criticality of a Robustly Built In-House Design

We've established the importance of a user-friendly system design that's simple and intuitive. *At the same time, a labeling system is not a tinker toy.* These are serious machines that require substantial investment. They need to be indestructible enough to practically last forever, yet flexible and adaptable to accommodate the inevitable evolution of change.

"We prefer to error on the side of making sure it's built to last," insists Jerry Wade, Midwest Regional Sales Manager for CTM Labeling Systems. "If it needs two bolts, we'll install six."



Yes, it's best practice to keep the engineering simple enough to understand intuitively from the driver's seat, *but under the hood you need flexibly customized durability.* An effective labeling setup requires an approach to engineering that's not afraid to go above and beyond the standard offering.

"With our in-house manufacturing and engineering capabilities, we don't have to rely on what's standard out there to address the unique challenges of the application," Kotowski says. "At the end of the day, the system should be specially configured and owned by the end customer to address their unique challenges."

It is that sense of ownership that makes in-house design and manufacturing so critical to the customization of a labeling system.

For one thing, you can get the engineering team on speed-dial whenever there's a mechanical or electrical concern, question, or challenge. Plus, you leverage complete control and direction throughout the engineering process. This is your labeling system after all. *Like a juicy gourmet cheeseburger, you deserve to have it your way, all the way, with extra Muenster and a fried egg on top.*

With an in-house engineering team, you also benefit from previous mistakes and the inevitable learning of experienced hindsight. Thanks to failures tested and successes already proven in the field, there's a virtual workshop of experience to bring to your build. **A cultivated design team can recognize potential pitfalls, suggest proven solutions right out of the gate.**

"Sometimes we'll hit a wall completely unrelated to our end that must be conquered nonetheless," Wade elaborates. "Fortunately, we have the engineering and manufacturing capabilities to cut parts and components to fix nearly any jam. We'll throw together solutions we know work from past experience that aren't always obvious in a standard approach."

3. Engineering's Magic Wand: The Advantage of Ambidextrous Modularity

A distributor gets a call one morning out of the blue: “Can you package and ship this new order out by tomorrow?”

Designed to perform one specific job only, many labeling systems lack the adaptability to respond to impromptu demand. You’ll be lucky to pull it off in a week if not a month. Yet if modularity is engineered within the labeling system’s design, *you can retrofit a suitable conversion this afternoon.*

With an ambidextrous design, equipment can be converted on the fly to accommodate new and spontaneous orders. A left-hand tamp can be converted to a right. The label nose assembly can be replaced with a more appropriate one. You save time and money by leveraging 360 degrees of possibility within a full circle of capability. That’s the beauty of modularity – for 20 percent of the cost of a new labeler, an entirely new configuration can be built within an hour. **Ambidextrous labeling is a manufacturer’s erector set for achieving spontaneous adaptations on the fly.**

> “If a design enables modulation, you’re never boxed into a corner,” says Brian Chivers, Assistant Director of Sales & Marketing for CTM Labeling Systems. “As product lines change, you might not always know what’s coming down the pipe, but you do have the assurance that equipment purchased today will flexibly deliver any changes you need tomorrow. It’s like having a crystal ball and a magic wand at the same time.”

With modularity, a packaging house servicing multiple contracts has the ability to go after new and different products. **They can service progressively accelerated contracts by adapting and delivering new opportunities faster than anyone else.** “Modularity within a labeling system does much more than save just money and time,” Schneider says. “It can win new contracts you might otherwise lose to a competitor.”

4. Optimize Engineering Capacity — Don’t Skimp on Training

Proper training enables a manufacturing team to deliver every dollar and cent of that critical ROI. Without knowledgeable operators, *the best built labeling machine may merely be a pipedream of unrealized potential.*

“A manufacturer may have a great piece of equipment that looks good and performs wonderfully,” says Kotowski. “But the labeling provider says, ‘You know what? You don’t need to pay me to come out and train you,’ just so they can knock $2 to 3 grand off the bid.

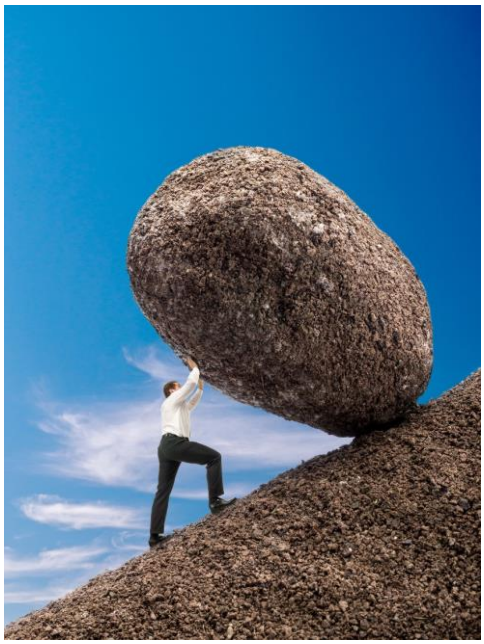
“They sell it and dump it with absolutely no follow up training,” Kotowski continues. “You now have an operator and maintenance guy trying to figure out what to do with the thing – a recipe

for disaster. **We cannot stress enough that adequate training is just as important as the proper equipment."**

Receiving a labeling system without the training can be *like sleepwalking out of heart surgery just before the doc stitches you back up.*
"We always tell our customers, 'Bring the operator, the maintenance guys, bring your whole family if that's what you need,'" Schneider says. "**Training ensures our manufacturers always get the biggest bang for their buck."**

5. What Being Too Cheap Can Cost You — the Value of Quality

There are lots of ways to cut costs and get a cheap labeler — install shoddy components, omit critical sensors, don't offer a warranty or after-sale support — *but the difference is always obvious in the end.*



No matter what tricks the provider tries to whittle down that quote, the core performance of a labeler always comes to the forefront eventually," Wade says. "You can't lie once the system is online. That's where the rubber meets the road and quality speaks for itself."

All too often, cheap components lead to sloppy labeling – if not the first month then perhaps next year or the following. You tweak one detail to bring an error back in line, and another appears in its place. Like the Greek myth of King Sisyphus, you're trapped rolling a giant boulder up a mountain for eternity – *only to lose your grip as it all comes crashing back down to earth at the worst possible time.*

"Inexpensive labeling machines are a lot like cheap shotguns," Kotowski says. "You use them for a few seasons and something inevitably starts to shift. This can affect label placement and ruin your throughput – not to mention your entire day. It's extremely frustrating."

Unfortunately, some end users only recognize that quality difference with 20/20 hindsight, the smoke clouds of disaster billowing in the rear view mirror.

"Once that frustration sets in, it's almost too late," Schneider says. "The sad reality is you've already spent your budget on a system that just causes problems and burns profit. What do you do then?"

6. The Value of Quality Control

On top of the product that needs to be reworked, the downtime itself can get exorbitantly expensive as you work to improvise a fix. The costs to a malfunctioning or broken machine can be exponential. Fortunately, quality control technology is prevalent, easy to use, and can be engineered to seamlessly integrate within a labeling system.

That's why engineering quality control methods into a labeling system's design is so critical. Say a machine labels 600 products a minute. Just five minutes of mislabeling can quickly run up a sizable fortune in wasted expense. Either those products will have to be relabeled, or if the adhesive proves too sticky, hauled straight to the dumpster.

Scanning or verification can be engineered into a labeling system to ensure correct label placement. Product tracking can be implemented to not only control inventory, but if an error does occur, locate that mistake systematically so the problem can be addressed. **Sadly, some vendors neglect to tell their customers what QC options are even available until it's too late.**

"Our industry's critical bottom line depends upon quality control like life and death," Wade says. "That's why our engineering team is careful to ask, 'What's at stake if something goes wrong?' We don't like to see a customer try to save a few bucks *but end up losing millions of dollars in inventory, just because quality control options were never discussed."*

7. How to Test the Engineering Resources of a Manufacturer

When designing and implementing a labeling system, there's a lot happening behind the scenes. How can you tell if a labeling vendor has the engineering talents and capabilities to deliver a system that addresses your unique challenges with the adaptability to evolve to future demands?

Before you ever accept a bid, tour that labeling manufacturer's facility. See what's happening on the shop floor – kick the tires of the production facilities, talk one-on-one with the engineers. Inevitably, you'll notice an obvious difference in quality in the drawing room and in the workshop.

"We understand what a good system can do for a manufacturer and what's at stake," Chivers says. "That's why we invite potential customers to come in and see those differences firsthand."

Ask about the company's engineering team and their experience:

- What is the ratio of engineers on staff?
- How much customization will they bring to the table?
- What previous customized builds have they done? Examples?
- Will engineers be on hand to deal with future problems as they develop?
- Are components made in-house?

Ask the vendor for a list of companies for which they have supplied labeling systems. What custom adaptations were they able to deliver?

Describe your unique challenges to your manufacturer. What solutions do they suggest? How would they approach the problem? What can they bring to the table that's beyond the status quo?

And finally, never be afraid to dream big and ask what's truly possible. Granted, any engineer will have to wrestle with the realities of physics, but you'd be surprised by what can be achieved with a creative approach. *Challenge them on their own creativity to develop solutions that come up along the way.*

What to do Next

So you understand the beneficial capacity of great engineering and what needs to be done to achieve a smoothly functioning labeling applicator. What's next?

First, realize that building an appropriate labeling system can be a trickier process than it seems. There's a lot on the line. But by being careful and proactive in the planning and selection stage, drilling down to the details, you can actually save a lot of money, time, and resources. *You'll end up with a system that works, that operators intuitively understand, and that can adapt to changes on the fly.*

Next, research labeling companies. **Talk to your distributor about the labeling system vendors they work with.** Ask what their engineering teams are like. How do they come up with blueprints? *Look at their designs; analyze their work process from design to execution.*

Quiz them:

- How customizable are their systems and can they accommodate your unique challenges?
- Can the equipment handle changes on the fly?
- Are they willing to provide training?
- Will they be there if you need help, spare parts, resources, etc.?

In the end, you can achieve a labeling solution that's perfectly engineered and designed for your particular use. It streamlines your work processes, includes QC technology to ensure reliability, and can flexibly evolve to satisfy the demands of the future.

Through a well-engineered labeling design, you can consciously and selectively drive your destiny. *Essentially, you control your own success with seamless labeling that never gets in the way.*

Set it and forget it. **Perfectly designed labeling is smoothly intuitive like the beating of a baby's heart.**

The CTM Labeling Difference

At our core, CTM Labeling Systems is an engineering company. We design and build labeling applicators completely in-house from the ground up. **Our engineering department not only comprises a sizable portion of our staff — they drive much of what we do.**

Our History — Modular Design with an Engineering Focus

We began in the early ‘90s under the name CTM Integration. We built the material handling systems and mounting hardware components for what today are our competitors — standard uprights, belt conveyors, label airheads, and stands.

In the late 1990s, we had an opportunity to partner with a household brand plastics food container company and launch our own printer applicator. That success transformed CTM Integration into CTM Labeling Systems.

Thanks to that integration, we learned to modify our printers and components to the various applicators in the industry. **This forced us to master customization from an engineering standpoint as we transformed into a one-stop labeling solution.** We identified the need for spontaneous adaptability and *were the first to develop ambidextrous modularity in a single core unit.*

A One Source Solution

So many of our competitors outsource their components. They sell out of the box solutions that are not customized to solve the unique challenges of the customer. They instead integrate multiple products from a variety of vendors. When something goes wrong, who do you call? Practically everyone. It’s just a mess.

The beauty of CTM Labeling is we’re a one stop shop: one company, one call, one contact. Thanks to our vertical integration, the level of support we provide can be critical. Whether it’s mechanical, electrical or software oriented, we’re right here to fix it for you — today.

Stress Free Labeling You Nearly Take for Granted

CTM reinvents what’s possible. We have the engineering and software expertise to review nearly any request and come up with a perfect solution.

Experience labeling so seamless you almost forget it’s there. Be in total control; build it your way, custom tweaked down to the last detail. **That’s the CTM difference.**

Contact us for a free consultation to see what CTM can do for you.