

So You *Still* Want to Start a Wide-Format Printing Business?

Part II in a two-part series on starting a new business.

By DAVE KING



Welcome to Part II of our series on starting a large-format printing business. If you're reading this, chances are Part I didn't scare you away and you're *still* interested. If you have not read the first installment, go to your coffee table and get the January 2008 issue of *Digital Graphics* magazine. This article won't make much sense without Part I, where we examined the business plan, sales strategies, getting money, selecting a business name and the basic functions of starting a new business. Here we will discuss equipment selection options, shop space requirements, understanding the competition, marketing tips and thoughts on automating your operation. Let's begin with the equipment.

BUYING THE RIGHT PRINTER

In Part I of this series I proposed a budget of \$45,000 for equipment purchases. Let's break it down so it's easy to make a better decision on the purchase of a new system.

One of the first things to decide is whether to buy a flatbed, a roll-to-roll, or a hybrid printer that does both. Then, choose whether to print with UV-curable inks or solvents. How wide should it be? What brand? What options are necessary? What's the cost of running the printer? What are its limitations? Wow, if I knew all these answers, I'd be writing for magazines – oh yeah, I do!

It seems like everybody right now wants a UV-curing flatbed printer. Yes, flatbeds are very cool, but remember that no single printer can do everything. Every system has its pluses and minuses. And I've never purchased a printer that didn't need something *else* in order to make money with it.

The central difference between a roll-to-roll solvent printer and a flatbed is that a flatbed allows printing directly onto rigid substrates, thus eliminating the need to

mount prints to rigid boards. To make money with a flatbed, there has to be good demand for rigid prints.

Here is a rough list of equipment and sundry other things needed/recommended to operate effectively for both roll-to-roll and flatbed systems.

Roll-to-Roll Solvent	UV-curing Flatbed
Price of printer \$17,000 – \$435,000	Price of printer \$55,000 - \$850,000
Film laminator \$5,000 to \$28,000	Digital die cutter \$80,000-\$170,000
Liquid laminator \$16,000	UV coater \$45,000-\$60,000
Light table for mounting \$4,000	Light table for cutting fabric \$4,000
Labor for mounting boards (\$)	Special shipping containers for boards (\$)
Panel saw and/or wall cutter \$1,500-\$4,500	Specialty printable rigid substrates (\$)
Storage racks to house rolls (\$)	Storage racks to house boards (\$)

A flatbed will cut costs for printing onto boards because it eliminates printing vinyl to be mounted, and the labor costs for mounting. In my experience, the drawback to today's flatbed printer is adhesion problems on certain substrates. Also, some film laminates may not stick to the ink, and finishing can be limited. UV-curable inks in flatbeds are more expensive than solvent inks, and the printers can be associated with higher maintenance costs. In addition, some flatbeds do not support roll-to-roll feed options, so printing onto rolls may not be possible.

On the other hand, solvent printers offer a very low cost of entry. Solvent inks stick on just about any rolled substrate, and they're compatible with film laminators and just about any laminate, allowing control over the finish, durability, and longevity of the print. There is also a lot of flexibility when it comes to applications. True solvent inks (also called "hot solvents") are the most durable among the solvents, but fumes are toxic and the system will need to be vented. Mild and eco-solvent are less aggressive ink options.

The size of the roll-to-roll printer will directly affect the cost of the unit. I recommend a 60" printer, but a 54" will also work.

Most rigid boards are 48" x 96" so a 50"-wide printer will cover most boards. Of course, 60" x 120" boards are good for some

applications, but finding vinyl wider than 60" and having a printer that can print full bleed at 61" is expensive. Bottom line, don't overprint the graphics for a 60"-wide board, as there's no way to mount the print to the board without some white along an edge.

For a business that does a lot of banners, consider 100"-wide printers. The cost is from \$50,000-\$90,000, and they can print full 8' wide banners without a seam. This is a profitable market, as most companies don't want seams in their graphics, and most graphics shops don't own printers that wide. Plus, the same printer can run the 54" wide vinyl with no problems. If the local market isn't large enough to support the extra \$30,000 for a wider printer, find a good print provider who has one and would be willing to take outsourced work.



The printer is likely one of the most important single equipment purchases you will make. Deciding between a roll-to-roll solvent printer and a UV-curing flatbed can be tough. A good idea is to check out what's available at tradeshow.

Starting a Business —Initial Steps



Can a flatbed printer be as productive as a solvent printer? Unfortunately, for small shops, the answer is *no*. A flatbed printer needs a person to watch over it at all times and to feed it with a new board every few minutes. A solvent printer can run all day or night while the operator's on the phone cold calling, and at the end of the day they can laminate and mount.

OTHER STUFF YOU'LL NEED

Fortunately, you don't have to take the plunge for the whole system right out of the gate, but there are few items you'll need right away.

A nice working table can be built in-house. Make the table right and it'll last forever. Also get a laminator and a grommet machine, and find a source for finishing banners and installing graphics. This will get things going and allow the shop to take on most of the orders sales can land. I would also find a source for grand-format graphics and jobs larger than your printer size.

In addition to the equipment mentioned earlier in this article, here's a partial list of other necessary items:

Sewing machine (single/double needle)	Hot air or RF vinyl welder/seamer
Grommet machine	Grommets, D-rings, V-cleats
Banner stands, hanging systems	Dowels, poles
Mounting adhesives	Stock of rigid boards
Film laminates	Corner rounder
Vinyl and banner material	Cleaning supplies
Hand tools (drills etc.)	Squeegees
Air release tools	Heat torch
Vinyl removal tools and products	Fire extinguisher

Banners are very profitable and easy to sell, but require the right finishing tools. Professional printers use RF welders to seam large banners, and to make pole pockets and hems to reinforce them.



In addition to buying media to print with, you'll need to some kind of media storage system that maximizes space and accessibility.



One thing I haven't mentioned is color management. Understanding how to get consistent, repeatable colors involves its own learning curve.

Without this machine, stitching or outsourcing are the only options.

The next favorite tool is a high-speed grommet machine, as it punches the hole and drives the tooth grommets into the material in less than one second. I had a machine that never jammed and we went through over 500,000 grommets per year! Tools like these help increase productivity.

Another tool that I recommend to save money would be a liquid laminator (in addition to a film laminator). This protects the banners from scratching while working on them, and is much less expensive than the hard laminates used for wall and fleet-side graphics. Investing in a liquid laminator saves about \$450 per roll on all vehicle graphics and about \$100 on every short-term wall or sign graphic.

SETTING UP SHOP

As the old saw goes, "When buying a house, the three most important things are location, location, location." I can't stress enough how *huge* this is for businesses as well. The physical address of a brick-and-mortar shop affects not only which clients it can reach, but also how far employees commute to work each day.

Determine the size of the location based on affordability, equipment needs and workload. Moving is very expensive. A 1,500 square foot space is enough to run a large-format business with a few printers, tables, cutters and so on. This should take the business to about \$350,000 in annual sales. Keep in mind: space is all relative to what the shop is doing.

Here are the ideal space requirements based on the equipment for a new business:

Solvent Printer – most solvent printers support 54-60" media, so this would make the printer size about 80" x 30". A



A digital cutter will help automate tasks, reducing the need for manual labor.

A high-speed grommet machine can really increase productivity in finishing banners.

hot-solvent printer will need to be vented to an outside wall. Also consider getting an air scrubbing appliance. I recommend building a special room (about 8' x 8') for the printer, inks and media. The room should have a small air conditioner and a humidifier to maintain 70 degrees and 50 percent relative humidity at all times. This precaution will help the printer produce very consistent color and result in fewer head-clogging issues.

Cutter – Work smart and get a panel saw. Keep it separate from other shop areas; away from computers and printers and the finishing department (about 20' x 10').

Work Table – 6.5' x 10.5' is a good

size. Allow about 3' around the table to move.

Storage Area – For the board and vinyl stock (about 10' x 4').

Laminating Area – Expect to need about 25' x 10'. Keep in mind that an 8' board put into the laminator on one side must come out the other.

Computer Work Area – This is typically a desk with a working table (about 1,000 square feet). A room that is a square or rectangular is better than a cut up area.

KNOW THE COMPETITION

Knowing the direct competition should be a huge priority for a new business. Analyze local competition

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and take note of their strengths and weaknesses. Don't think selling something for *less* will automatically get the business. Be careful about charging less to earn new business. If the shop starts at \$4 per square foot, customers will remember this and won't want to pay \$8 later, even if it costs \$4 to make the prints.

Today, many clients are concerned about service. An inability to service the account as well as the competition will make things very difficult. Service has multiple parts. It requires the people and resources to compete, and the equipment to handle the job.

When I started my shop, I hired a consultant. I gave him a list of what I wanted pricing on, and sent him out to do the research on my competitors. What he came back with was *very* helpful, and I was able to be competitive and know when to say *no* to prospects that wanted to beat me up on price.

TWO MARKETING IDEAS

Marketing is a huge part of success. Always think of what else can be done to help sales efforts. Here are two ideas I've used that work very well.

It's a great idea to present the company at local non-graphics tradeshows. When I was getting started, I worked a lot of local shows and brought a printer to the show and ran graphics right off of it. This attracted a huge crowd and led to a lot of new business. Printers are commonplace to us because we work with them every day, but to the average businessperson at a non-graphics tradeshow, they're new and exciting.

Expect to pay about \$3,000 for a 10' x 10' booth. Use graphics that state why the people need to do business with *your* company — how *your* graphics can help them. The booth should have lights to give it excitement, and be open and inviting.

Another great marketing idea is to wrap a shop vehicle with graphics. Driving around with a clear message on a vehicle demonstrating how wraps help businesses become more successful will get calls. Our wrapped shop vehicle brought in about \$15,000 *profit* per year, and it cost about \$2,500 to wrap. The more vehicles a shop has on the road, the more successful the campaign. If there are three cars in the driveway, then wrap all three.

AUTOMATION VS. MORE STAFF?

At some point, once the shop is making money and starting to grow, the time will come to make some serious decisions about growth. Shop owners of new, growing, companies often believe that life will get easier if they hire more people. However, in many cases life doesn't get easier — it just gets more expensive.

In all cases, research better ways to *automate* the business before hiring more people. Employees are looked at two ways: as an expense, or as an income generator. Sales people are the income generators, all others are expenses. An expense is always bad because 100 percent of the expense comes out of the bottom line.


For example, when we bought our

flatbed digital printer, we also wanted to beef up our finishing department to handle more boards. The cost of a flatbed digital die cutter is about \$120,000 (about \$2,970 per month). We took our laminating and mounting department from five people down to three overnight with the purchase of a digital die cutter (like a Zünd or Kongsberg).

We also turned jobs much faster and were able to offer additional unique services, like custom die cut images, for a higher profit margin than the standard graphics. The monthly lease payment for a digital die cutter is less than a \$15 per hour employee. The advantage is that it does not call in sick, collect overtime, or show up to work hung over or in a bad mood. Plus, after four years the machine works for free — where can you find an employee like that?

GET WHAT'S COMING

Now that you are up and running, what's next? How about *money*? Yes, you cannot believe how many businesses get in trouble when it comes to collecting money. Keep in mind: you are not your customer's *bank*. If they want terms, let their credit card company give them net 30 days.

Anyway, we've discussed a lot here. I think this should help you get started or should spark some new ideas for established businesses. Remember, there are experts out there who can help you achieve these steps. Good luck. Be smart with your money, and I'll see you on the show floor. 

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