



ON THE HEELS OF DIGITAL PRINTING SUCCESS, HERITAGE SOLUTIONS IS NOW FOCUSING ON SOPHISTICATED MULTI-COLOR FLEXO.

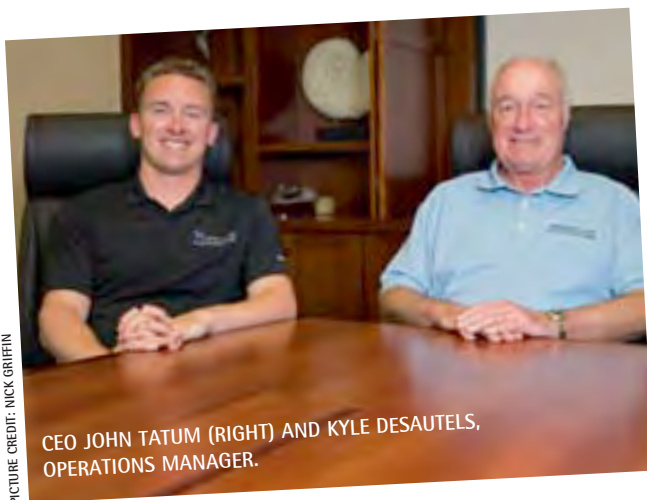
# ENDEAVORING TO BE 'THE BEST'

PICTURE CREDIT: NICK GRIFFIN

"Good enough" are two words that customers will never hear from John Tatum, especially when referencing **corrugated post-print**. The CEO of Heritage Solutions, a California-based family of companies that offers a variety of packaging-related products, wants to raise the bar as high as it has ever been in corrugated flexographic printing. He has invested more than \$10 million in infrastructure and new equipment in order to be the best printer in the industry. "That's our goal," he says. "We think we're the best digital printer and we want to be the best direct print flexo printer."

It's a lofty goal, one that employees and vendors are reminded of constantly in meetings and on message boards throughout the sheet plant in Livermore, Calif. "We talk about it every day," Kyle Desautels, Operations Manager, says. "When we trained our new team, every time we met we would end with everyone having to say one thing that was going to make us the best in the world."

"There is no reason why we shouldn't be the best printer," COO Michael Musgrave adds. "John Tatum is a very entrepreneurial, incredibly



CEO JOHN TATUM (RIGHT) AND KYLE DESAUTELS, OPERATIONS MANAGER.

PICTURE CREDIT: NICK GRIFFIN

BY JACKIE SCHULTZ

courageous man to do what we just did. That's why I want us to be the best the world has ever seen."

What Tatum did was agree to set in motion a plan that would completely upend the plant, from culture to product mix, which until recently was largely digital printing and brown box up to three-color. Relying on the expertise of Heritage personnel, supplier partners and Quadrant5 (Q5) Consulting, the project paired together best in class technology with Lean practices.

## Springboard to Flexo

In an extraordinary turn of events, Heritage created a dilemma for itself several years ago. An early adopter of digital printing, the company had become wildly successful to the point where customers were placing higher volume orders for a process that was often more suited to shorter runs. This prompted a meticulous search for a cost-effective, high volume, high quality alternative printing solution. "In digital printing we found that our customers came to expect that every box would be perfect," Musgrave says.

Tatum purchased the first digital press in 2008, providing a differentiation point in the competitive West Coast corrugated market. The Vutek inkjet printer opened up new opportunities for customers looking for shorter run premium packaging. Today, the company has an impressive portfolio of digital solutions including two HP Scitex 10000s, a 15000 and an FB700.

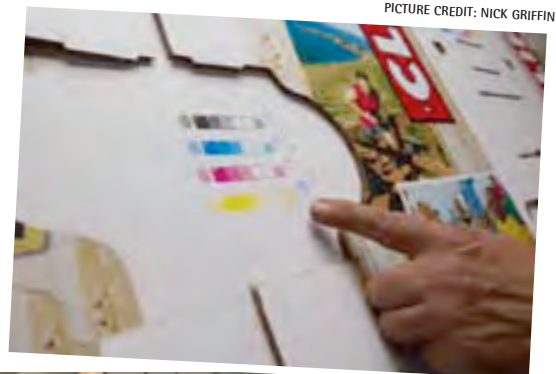
Exploring new strategies for growth, Tatum and Musgrave evaluated litho and flexo printing technology, although, Musgrave admits to initially having reservations about flexo's ability to achieve high-end printing quality. "A year before we started our research, we

had already determined that we would likely never buy a high-end flexographic printer," he says. He felt the equipment had reached a point of diminishing returns and couldn't compete against litho, but he soon learned that was not the case.

In January, Heritage installed a Göpfert Evolution 16/32 (66 x 125 inch) HBL (high board line) seven-color rotary diecutter. While there are a handful of similar machines in the U.S., this is the newest seven-color 16/32 with most options included. It is equipped with state-of-the-art components providing Heritage the ability to achieve flexo print quality comparable to litho, printing 150-175 line screen.

THE GÖPFERT IS EQUIPPED WITH STATE-OF-THE-ART COMPONENTS PROVIDING HERITAGE THE ABILITY TO PRINT QUALITY COMPARABLE TO LITHO.

With this new machine, Heritage is targeting customers accustomed to litho printing quality, offering the attractive economics of flexo combined with shorter lead times. "I don't want the customer who looks at a flexo job and says, 'It's good enough.' I want the ones who are saying, 'I want litho but I wish I could get it in five to eight days, not five to eight weeks,'" Tatum says. "We can run 10,000 an hour in process printing."



PICTURE CREDIT: NICK GRIFFIN



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NEXT TO THE OPERATOR'S CONTROLS FOR THE GÖPFERT PRESS ARE THE INTEGRATED CONTROLS FOR THE JB IR DRYERS, KLEENPLATE AND UV CURING SYSTEM, ALONG WITH THE SENTINEL™ & VISIONMASTER™ MONITORING SCREENS.

## Heritage's High Graphics Journey

Ideal markets include food and beverage, especially wine. "The wine market is very particular. They want it perfect and this is the only machine that I know in direct print flexo that can do it right," Tatum says.

In conjunction with the installation of the Göpfert, Heritage also purchased a new Vega Altair specialty gluer, the first of its type in the U.S. It has a dual feeder for multi-piece gluing and a hot and cold glue system from Baumer hhs. The two new machines are located in the same temperature and humidity controlled area as the company's HP digital printers. Part of the \$10 million investment included knocking down a wall, relocating an ancillary business unit to another building and rearranging the digital printers and Kongsberg XP Auto table to make room for the Göpfert and Vega machines.

Prior to installing the Göpfert, Heritage was flexo printing up to three colors on its Ward flexo folder-gluer, S&S flexo, and McKinley rotary diecutter located in the 180,000-sq-ft Livermore facility.

The product mix, which is about 60% brown box, is about to change significantly. "It's definitely a completely different world that we've gone into," Desautels says. "We were not doing any high graphics in flexo. We were very proud of what we could do with our machines, but we were not pushing the limits on anything as far as direct print flexo goes."

The Göpfert is equipped with sophisticated printing technology that includes sheet inspection, ink control, dust collection and air management systems, creating a consistent printing environment inside the machine. Everything is computer controlled and self-correcting, eliminating any manual guesswork. If a sheet drifts more than



THE VEGA ALTAIR SPECIALTY GLUER IS THE FIRST OF ITS KIND IN THE U.S.

.001 millimeter the speed and skew are automatically readjusted.

"We want this to be mathematical. We don't want someone adding an extender into the ink to solve a problem," Desautels says. "We have a lot of bells and whistles on this machine to make sure that it can use math to decide whether jobs are printing properly so we take a lot of judgment out of it, which is why we can print 150+ line screen and hold that on press

without an operator manipulating dials." The operators hired to run the Göpfert have litho or digital printing experience and received five months of training prior to installation.

One feature that was very attractive to Heritage was the dual diecutter, which allows the machine to be pre-set for the next order while the current order is running, similar to the high board line concept of setting up while running for print jobs. A complete



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## Heritage's High Graphics Journey

diecutting job changeover can take place in three minutes.

The added diecutting capacity can easily accommodate digitally printed sheets. "As our digital volume increased, the digital printers kept up, but because of the ink characteristics it was very difficult to diecut or fold and glue jobs on conventional equipment that do not have vacuum transfer," Musgrave says. "It could take two to three hours just to set up."

"If we're running two seven-color jobs back to back we can finish one job and diecut the digital order while we are setting up the second, essentially eliminating downtime," Desautels adds

### A Different Approach

Ancillary components for the new machines were carefully evaluated by Tatum, Musgrave, and Desautels. Musgrave says he started vendor meetings with the same speech: "Everybody at this table needs to know that we're doing something different. Whatever it is you've always wanted to do, whatever ideas you've had to produce a better or more consistent quality product that have been turned down by prior clients, bring those to me."

Key supplier companies include Sun Chemical, Pamarco, and JB Machinery. The machine is equipped with almost the complete JB Machinery product portfolio, including seven Final Flexo IR Dryers, seven Power Drop Down Systems, eight Sentinel™ automatic sheet detection units, eight VisionMaster™ in-press dryer inspection and monitoring systems, six KleenPlate® printing defect and plate wash eliminators and a ColorCure® UV flexo curing system. This configuration provides the full array of print and

varnish combinations, including six-color process printing with water-based or UV overprint varnish, while diecutting in a single pass at full machine speeds.

For process printing the machine uses Pamarco EFlo laser engraved anilox rolls in excess of 1000 line screen. One of the first banded roll tests was with Pamarco rolls and Sun Graphics plates. "The anilox roll went from 800 line screen up to 1400 line screen with 10 different sections, printing on B-flute with print plates that went from 100 to 150 line screen," Desautels says. "When we did that test, on the tenth sheet, we held a 1% dot on the 1400 without issue. Within minutes of trying, we hit the highest possible mark on that banded roll test."

In what is considered rare in the corrugated industry, Heritage partnered with one company — Sun Chemical — for printing plates, cutting dies and ink. "They were the only supplier that heard me when I said, 'Bring me the best you have to offer. Bring me your dream installation for an in-plant ink kitchen'," Musgrave says. "When Sun came to us with their proposal, they absolutely blew us away with their technical capabilities, particularly around color management and ink technology."

Sun helped train the new press operators and set up an on-site ink lab. The two companies partnered to set up a Color Innovation Center, an area consisting of the ink lab, ink mixing unit, and conference area for customers to do press checks, just across from the Göpfert and the Vega gluer.

"We have the highest level in-plant installation in the world from Sun," Musgrave says. "That allows us to maintain our speed to market because we do everything in-house and eliminate the manual guess work. Everything we do is purely scientific and

I don't have to worry about my print plate rep arguing with my ink rep about color management because now they're the same company."

### Establishing Collaboration

Heritage considers its relationship with industry suppliers a partnership. HP is a good example. Heritage acts as a West Coast showroom for HP's corrugated customers. In return, Heritage is involved in HP's new product developments. Musgrave says he asked Göpfert to model that relationship. "We became their West Coast showroom and their most fully featured machine in the U.S."

Just prior to the Göpfert installation, Tatum and his wife, Linda, invited all of the vendor partners and their spouses to a dinner party at their home. The dinner was symbolic, Musgrave says. "It was the end of the selection process and we were now focused on becoming one team." The vendors were introduced to each other and reminded of the mission to be the best printer in the world.

When there is a problem the partners are expected to participate in a roundtable discussion with Heritage staff to resolve the issue. "Introducing them to each other created accountability between them," Musgrave says.

For Tatum, this journey is an important stepping stone in Heritage's success. It's a risk, but it often pays off. He did it with digital printing and now he is doing it with flexo. "If we had stayed as we were back in 2008, we probably wouldn't be around today because you can't make money running a whole bunch of brown boxes," he says. The biggest thing that I want to achieve is I would like to be able to make money in the box business." ■