

# 3C! FINDS GROWTH IN CORE MARKET SEGMENT

DIVERSIFYING INTO PHARMACEUTICAL PACKAGING COMPONENTS PROVIDES SIGNIFICANT EXPANSION OPPORTUNITIES FOR THIS U.S. COMPANY.

BY JACKIE SCHULTZ



Joe Elphick with his daughters Joey Elphick (left) and Jessie Elphick.

**U**S-based 3C! Packaging, formerly known as Colonial Carton Co., is an independent privately-owned pharmaceutical packaging solutions company in Clayton, North Carolina. Products include custom folding cartons, printed

literature, labels and foils. Customers can also choose from a full menu of support services, such as graphic and structural design, product launch packaging, anti-counterfeiting solutions and variable data and serialization. Many of the products,

with the exception of folding cartons, are new within the last five to 10 years.

Explaining his vision for expansion, Joe Elphick, founder and CEO, says he intentionally opted not to follow the traditional model of building multiple plants around the country.

## Folding cartons are printed and diecut on 40-inch Koenig & Bauer Rapida 105 offset presses.

“In the pharmaceutical world you would have a plant in the Northeast, Southeast, Chicago, etcetera, but I didn’t want to do that. It’s too hard to manage. I wanted a better way to grow this organization and then it dawned on me. Since our folding carton customers love us, let’s come up with more things to sell them. We jumped into printed literature first and then about three or four years ago we added labels.”

The additional product offerings provide diversification within the core business and offer a one-stop shop to customers. “Now they can buy the folding carton, the insert and the label from one vendor,” Elphick says.

Folding cartons represent about 50-60 percent of the total business.

Printed literature is about 25-30 percent and labels are less than 10 percent.

In 10 years annual sales have more than doubled, increasing to mid-\$40 million.

### 24/7 Operation

Nearly 300 employees work at the Clayton facility on CCC Drive. Operating 24/7, the manufacturing area bustles with high-speed performance and throughput. “Our DNA is quick turnaround time,” Elphick says. A few years ago the CGMP (Current Good Manufacturing Practice regulations enforced by the U.S. Food and Drug Administration) manufacturing facility was expanded to 120,000 sq ft and it is already outgrowing the added space.

As one might imagine, the operation requires a significant amount of state-of-the-art processes and machine technology to produce the broad range of end products.

Folding cartons are printed on Koenig & Bauer Rapida 105 offset presses (a four- and seven-color). The Rapida’s were the first in the U.S. to have Koenig & Bauer’s Qualitronic II inline sheet inspection quality control systems.

3C! has three Koenig & Bauer Iberica blankers. The newest, an I-Press 106 K, was installed about three years ago. It is the latest generation of diecutters made by Koenig & Bauer Iberica and features many electronic advances making it a premier solution for folding carton



3C! has three Koenig & Bauer Iberica blankers. The newest, an I-Press 106 K, was installed about three years ago.

converters. The feeder is servo driven so carton converters can control the timing on the fly, and it has both circumferential and lateral registration cameras that guarantee sheet to sheet registration. This feature for the front and side-lay registration is called OPMR (Optical Print Mark Register).

The I-Press offers many specialized features, including lateral displacement of the pile by a laser system to ensure perfect positioning. The touch screen can control total movement of the sheet. The operator can easily advance or delay the arrival of the sheet to the front lays, thus improving the register at high production speeds. The machine is capable of running at speeds up to 15,000 sheets per hour.

Cartons are glued on Bobst Alpina II folder-glurers.

### Beyond Cartons

Expanding beyond folding cartons has required a major investment in new technology, processes and quality assurance.

Labels are produced on eight- and 10-color Nilpeter 13-inch presses. The presses run all types of labels, including paper, mylar and foil

The installation almost 10 years ago of a four-color 17-inch Mark Andy flexo press provided an entrée into the insert market. Today, inserts (the directions that come inserted with pharmaceutical packaging) are printed on high-speed roll fed offset Diddé presses and then cut on Heidelberg Polar high-speed cutters,

A new Vijuk patented MV-11 triple knife folder for inserts/outserts can fold up to 350 panels. 3C! was one of the first installations.

however, most of the cutting dies for the Ibericas are purchased from an outside source. "We used to make 100 percent of our dies but it just became too busy," Elphick says.

Paper roll stock is sheeted on a new Barry-Wehmiller MarquipWardUnited Apollo TSKM sheeter. The predominant folding carton stock used in the plant is SBS.

Custom corrugated shipping containers are produced on a Packsize® On Demand Packaging®

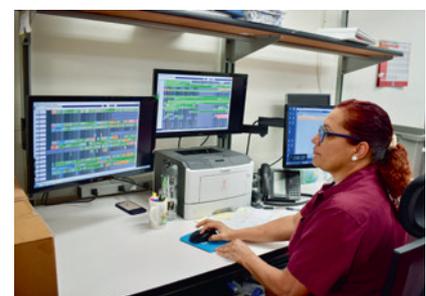


A new Vijuk patented MV-11 triple knife folder for inserts/outserts can fold up to 350 panels.

In-house capabilities provide flexibility and fast turnaround. All of the inserts are packed in custom-made paperboard trays, which are produced in-house. "This comes back to speed," Elphick says. "We were waiting three to four weeks for trays and they were expensive."

Printing plates for the roll fed and sheet fed offset and flexo presses are also made in-house. The scheduler monitors jobs via three computer screens, tracking orders and managing any last-minute changes. "We have to move things around a lot," Elphick says. The business management software is from ASI Computer Systems.

3C! has a cutting die room with Gerber diemaking equipment,



Solimar Ramos monitors all jobs.

machine, which is another new investment and one more way to provide customers with fast turnaround of orders.

### The Future

Elphick started Colonial Carton in 1979. The company's success has been despite a few major



Labels are produced on eight- and 10-color Nilpeter 13-inch presses.

setbacks including a fire in 2005 that destroyed the building and most of the equipment. Membership of the Independent Carton Group (ICG), along with the support of several suppliers, including Koenig & Bauer, Iberica and Bobst, helped the company rebuild. Elphick has been loyal to those suppliers ever since.

It has been an interesting journey to watch Colonial Carton evolve into 3C! Packaging. Elphick says he changed the name because “Colonial” had a perception of being old and traditional. Also, he wanted to take the word “carton” out of the name. 3C! reflects the present-day product offerings and the exclamation point is about exceeding expectations in the marketplace. “Customers who do business with us are surprised at what we can do for them,” he says.

Looking ahead, Elphick says his biggest opportunity for growth is in carton insert combinations where an insert and a label are applied to a carton. Another growth sector is Clear Code for serialization (see sidebar article). “It has really taken serialization

to a new level,” he says, adding that a lot of companies use ink jet printers for the codes, but consumables are costly and the quality isn’t as good. “All customers have to do is order cartons or labels from us with our Clear Code on them. There are no consumables.”

Currently, Elphick is evaluating digital technology for folding cartons and is close to making an investment. While he is hesitant to specify, he did say, “It’s going to address the digital market and it might not be digital printing.”

Recently, Elphick’s daughters Joey and Jessie Elphick, have joined 3C!. Joey is Vice President of Operations and Jessie is an account manager in the sales department. “I’m very proud of them. That’s been one of the biggest changes here. They really added to the culture of the company,” he says. “When they came on board they said, ‘Dad, it’s amazing what you’ve done all these years but it’s not the best company in the world to work for. You’ve got to be the best company

amount of time he spends managing the company, delegating to his management team. “I’ve got a really good management team. They are very bright people. Growth excites everybody. It is the team here that does it all. Our core value is teamwork.” Signs posted around the facility reinforce the corporate mission. They read: “Why do we exist? To build a great company & great people.” “This is our core purpose,” Elphick says. “The whole management team lives and breathes this.” ■

### SERIALIZATION SOLUTION

A recent noteworthy innovation is 3C!’s Clear Code, clear laser imaging coding for pharmaceutical serialization that optimizes production line speeds and enhances visual quality. By employing a low or high wattage CO<sub>2</sub>, fiber, or Yag laser and proprietary color change technology, 3C! is able to offer high-contrast imaging on a colorless coating. “It’s a real game changer in serialization,” Elphick says.



The code is validated with in-house laser equipment located in a separate room. This eliminates the need for the traditional laser ablated black box, Elphick explains, adding that Clear Code provides superior clarity, contrast and resolution of the final image with a fully validated process. The technology is compatible with folding carton, inserts, labels and Tyvek®.

The Clayton, N.C. facility on CCC Drive was expanded to 120,000 sq ft and it is already outgrowing the added space.



in the world.” He says his daughters introduced team building exercises, anniversary celebrations and other functions that have had a positive affect on the employees.

Elphick has since reduced the