20 Years of Contract Packaging

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Successful contract packagers have become closer partners with manufacturer clients and have helped them implement new package formats.

Contract packagers’ business ebbs and flows with the fortunes and priorities of their pharmaceutical manufacturer customer base.

When pharma companies are launching new products, contract packagers’ expertise and technology can bring them to market quickly and at lower cost. Drug companies often rely on contractors for redundant capacity for handling product demand surges.

Conversely, drug companies with the manufacturing capacity and know how may favor the closer control over operations that comes with in-house-production.

With marketplace opportunities in flux, contract packaging organizations have sprung up, merged, and, in some cases, folded.

Leading contractor packagers today have their thumbs on market trends and manufacturers’ emerging requirements, and often invest in technology one step ahead of customers’ need for it.

In the past 20 years, the relationship has become more vertically integrated, as manufacturers have sought to outsource more responsibilities. Often a relationship begins with one product and expands into a more far-reaching business opportunity.

The breadth of services offered by contract packagers--from early-stage drug form and package design to managing product through its life cycle--has expanded year over year. Contractors are buying and managing packaging materials inventory and establishing just-in-time supply chain practices. Software platforms have been adopted that provide client and contractor with collaborative visibility on production processes.

“The contract packaging field is growing significantly. Many companies are looking for ways to outsource some parts of their packaging process. In turn, contract packagers are always on the look out for ways to expand their services,” the Contract Packaging Association presciently observed in 1998.

Pharmaceutical manufacturers have differing expectations for support from contract packagers. Some only look for capacity for handling spikes in demand. Alternately, more...
drug manufacturers have moved to focus on drug development and other core competencies, off loading most all aspects of packaging to contractors.

Jim Rhodes with contract packager Paco Pharmaceutical, Lakewood NJ, identified outsourcing as trend back in 1994, commenting: “This is the age of rationalization, when drug companies are being asked to do more with less and are trying to find additional resources outside the company.

“Where a few years ago they may have been looking to us for packaging labor, now they want us to import product, inspect it, do chemical analysis, manufacture, test, validate, and release product to their distribution centers,” Rhodes stated.

AN EARLY SEAT AT THE TABLE

“There is a greater movement to bring the full-service contract packager in early on—when commercialization is years away—so they can develop packaging based on contractor capabilities and capacities,” said Ed Hancock, president of American Healthcare Packaging in 2003.

And PMP News reported observations from Joseph Urban of ProClinical Pharmaceutical Services a year later: “The contractor’s role will be the delivery of more services in a more time-efficient, cost-effective way through bundling as many services as possible.”

Howell Packaging designs and manufactures packaging components, performs secondary contract packaging and kit assembly, and warehouses and distributes finished SKUs.

“Our ability to handle multiple links in the supply chain—by bundling products and services—permits us to not only gain efficiencies but also compress speed-to-market,” says Trevor Ball, Howell’s vice president, marketing.

Packagers in early-stage collaboration assist in identifying package materials and designs that optimize both the package and its production. This expertise can help overcome pharma clients’ risk aversion to new packaging formats and processes. In addition, the contractor is often accomplished in handling complex or unique packaging such as blisters and wallets, pouches, and promotionally appealing secondary packages.

At Pharma Packaging Solutions, division of Carton Services Inc., two in-house design teams will evaluate the customer’s packaging structures and graphics with the goal of improving time lines, start-up costs, and speed-to-market.

Howell Packaging staffs a structural design group that evaluates the entire package to recommend material and structural improvements related to cost reduction and optimizing manufacturing production cycles. “We encourage our involvement at the earliest design stages of any specific project, in an effort to gain cost efficiencies and expedited speed-to-market. We have integrated production planning functions with a number of key accounts,” says Ball.

The trend of manufacturers looking to streamline package development with contract packaging partners was noted by Renard Jackson, executive president of PCI Services in 2001. Jackson subsequently went on to form and lead Aphena Pharma Solutions, a new force in contract packaging with its launch in 2011.

“While more products are coming to the marketplace, manufacturers are downsizing their package development groups. They’re looking for partners to sit at the table early on in the package development process when they are still identifying the final form of the drug [before clinical trial and stability packaging],” Jackson said.
“The big pharmaceutical companies are increasingly relying on their vendors to provide them with ideas for innovation,” said Edward T. Noland, Jr., director, business development, Pharma Tech Industries, which has carved a niche in the packaging of powder-based products.

“Our engineers design unique solutions to improve customers’ processes during the early stages of technology transfer, when cost improvement opportunities are the greatest. In our cost improvement program, we can reduce the cycle time in getting product packaged,” Noland said.

Anderson Packaging (today AndersonBrecon) and Sharp Corp., for instance, each run a range of compliance package designs, as brand and generic customers look to blister formats to drive product sales, brand loyalty, and patient education and safety.

“People are looking for something unique in the marketplace that adds value,” said Kevin Carter, director of business development, McKesson Pharmaceutical Packaging. McKesson’s RxPak contractor division offers a portable, discrete compliance pack design with the Burgopak.

**BIG GROWTH**

AndersonBrecon and Almac Group are among contract packagers that have led segment growth.

AndersonBrecon has steadily added capacity and new services in the last decade, up to its combination last year with UK’s Brecon Pharmaceuticals to form AndersonBrecon, a business unit of AmerisourceBergen Consulting Services. The company’s Rockford, IL, campus today boasts eight packaging facilities with over one million sq ft. A Specialty Pharma Center launched in 2010 handles potent compounds. AndersonBrecon recently expanded services in cold-chain storage, parenteral packaging, and kit assembly.

“The pharmaceutical contract packaging market has traditionally focused on oral solids and powders. Now customers are coming to us asking for very complex kit assemblies [such as] assembly of injectable devices, which require very specialized equipment and inspections,” says Justin Schroeder, senior director, marketing and development services, AndersonBrecon.

“These are often complex multiple-component systems that often require cold chain handling and special care to keep process loss to an absolute minimum,” Schroeder added.

Almac of Craigavon, Northern Ireland, launched U.S.-based operations this year in a 100,000-sq-ft facility in Audubon, PA, encompassing clinical trial supply and commercial scale primary and secondary packaging. Facilities feature 16 primary packaging suites, 23 secondary packaging suites, and a labeling suite. The plant packages tablets and capsules in bottles, blisters, wallets, and hospital unit doses, and packages biologics in vials and ampoules. Campus services include R&D, translational genomic services, API manufacture, formulation, and analytical development, and controlled-temperature drug storage.

Almac’s U.S. initiative has followed robust investment in Europe that includes expansion of UK commercial manufacturing, packaging, and analytical facilities, and enhanced capacity for cold and frozen storage of drugs. The UK Commercial packaging services acquired Noack N623 alu/alu blistering technology and launched a client-dedicated facility for expanding by six-fold European distribution on powder in sachets.

Sharp Corp. is expanding its 180,000-sq-ft Allentown, PA, plant with the addition of 50,000 sq ft of primary and secondary packaging suites to support growing business in bottling and from bio tech companies, says Bob Mac, marketing manager. “We have seen a steady increase in business over the last three years in bottling and
blisters. We launched thin-film pouch packaging [in 2011] for oral dissolvable and transdermal patches,” Mac adds.

LEADING TECHNOLOGY

Contractors have been early adopters of advanced technology including vision systems, robotics, and digital printing. By the nature of the business, they are key customers for machinery that is quickly and flexibly changed over in batch production mode. The flexibility enables efficient production and supply of multiple SKUs, a priority for customers expanding to global markets with multiple trade dress requirements.

Aphena Pharma implemented electronic batch records, as it commenced to push best practices through its newly formed organization. Targeting production efficiency, McKesson’s RxPak contract packaging division implemented OEE software. “We are already finding areas where we can get more production out of the same equipment and the same labor as we look at the reporting on the operational characteristics of the line. It has been a great tool for us,” Carter reported in 2010.

VERTICALITY

Close collaboration is important for success in these relationships. Through project management services, contractors ensure critical milestones are met to enable smooth market launch and reduced time-to-market.

At RxPak, client-side functional work teams get involved in every project—looking for problems and solutions related to their entire portfolio, Carter said. RxPak has largely focused on serving smaller companies and generic and virtual companies for which it can often purchase and supply materials more cost effectively, drawing on supplier relationships, said Carter. “We know the lead times on the materials. If a problem arises, we can work it out without the customer being involved or even knowing there is an issue,” he said.

In vertically integrated supply chains, contractors have taken responsibility for maintaining packing standards and often for purchasing and managing inventory of packaging components.

In arrangements where customers are billed only for finished products shipped to meet short-term demand requirements, the burden evolves to the co-packer to manage package production efficiently. “This outsourcing takes a lot of inventory off the customer’s books and eliminates a lot of planning. They are limiting their liability from production over runs, or if packaging should require graphics changes. If they change their forecast, they are not obligated to take the material,” Jason Aymerich at Diamond Contract Manufacturing described in 2009.

Using just-in-time practices, inventories are minimized throughout the supply chain. Tapemark, for instance, manages an entire inventory program encompassing material sourcing to finished goods supply. Through Kanban scheduling, raw material and finished products are supplied at each stage of production based on marketplace demand.

PACKAGE INNOVATION

Contractors help take the cost and development risk out of new packaging formats, thereby enabling customers to adopt newer solutions favored in the healthcare market, as well as differentiate among competitors. Health system support for single-dose administration, for example, has driven growth in prefilled syringes and blisters.

Drug manufacturers have to an increasing extent focused on the potential of packaging to improve patient adherence with drug regimens. As momentum for compliance packaging has grown, contract packagers have developed platforms to run popular compliance formats and have developed their own proprietary designs. “We
have always felt we were talking up the chain to try to get adoption on compliance-prompting packaging. Now we are starting to get inquiries from all of our major customers,” Schroeder commented in 2009.

“We are working to take the stigma out of child-resistant packaging by designing packages that are very intuitive and consumer friendly,” Schroeder reported in 2010, noting adoption that year of Anderson formats including the AssuraDose, CIAB, IntuiDoseM, and DuraPac.

Contract packagers have supported an evolution toward more-elaborate sample packaging as well. As the pharma industry has slashed employment of sales reps, drug companies have favored sophisticated starter kits—tailored to the goals of improved compliance and brand loyalty—for introducing treatments to physicians and patients.

Starter packaging “speaks to that first-time experience; you’re kind of seeing the softer side of packaging,” Schroeder described. “Any time you can decode people’s fears and preconceived perceptions about taking medication in general, it gets people to identify with the brand,” he added.

PACKAGE SERIALIZATION

Another opportunity emerged with requirements for product serialization, where—as legislation progressed in fits and starts—contractors geared up to help firms test out solutions while minimizing investment. Contractors establishing solutions for serialization are emphasizing flexibility. “Several existing and potential customers have approached us in the past two or three months to start a conversation about our serialization and e-pedigree services,” says Sharp’s Mac.

Sharp offers a technology platform for customers developing track and trace capabilities. “We work with the client to provide them with serialization solutions based on their user requirements. We can collaborate with e-pedigree solution providers in developing a cost-effective serialization solution for the customer,” Mac says.

Almac is currently selecting vendors for serializing product online at high speeds in the United States. The company designed and built its own serialization solution—the Overprint Serialization and Inspection System (OP-SIS)—for off-line operations in Europe, says David Downey, vice president, commercial operations.

“Serialization has again come to the fore in recent months, particularly with U.S. clients. The challenge all contract packagers face is the lack of clarity by the regulators on requirements and if these requirements will be practical in the real world. In my opinion, the return on implementing serialization is questionable at best,” Downey says.
Some AndersonBrecon clients are implementing pilot studies to learn about the technology, while watching the progression of legislation. “Others are full speed ahead; they want AndersonBrecon to be their lead location for overall company implementation, using us a blueprint for their entire network,” Schroeder says.

“The lack of standards puts us in a precarious position of establishing standards and meeting the various requirements of hundreds of clients. We have been very selective in our systems and implementation, maximizing flexibility, because that is the core foundation of our business,” he adds.

LOOKING AHEAD

Perhaps as a result of closer partnering, manufacturers have grown more confident in high-quality contractors. But that is not to say that business is always ensured for contract packagers. The segment’s shifting fortunes were evident last year when Daiichi Sankyo in North America brought manufacturing in-house with the purchase and renovation of Alcan Packaging’s former contract packaging plant in Bethlehem, PA. The company said it would cease outsourcing with contract packagers in Philadelphia, Chicago, Georgia, and Ontario.

Yet given recent trends, the future looks promising. In managing mergers, layoffs, and patent expirations, companies are focused on cost cutting as never before; rising segments like biotechnology and generic companies, that often have limited resources, can benefit from outsourced services. “I would suggest the competition from virtual companies has also influenced strategy. Many of the traditional brick-and-mortar companies have reshaped their supply chains to be leaner and more responsive to market conditions,” says Schroeder.

Opportunities for contract packaging in the U.S. and the EU are increasing year by year, as companies focus on noncore business divestment and headcount rationalization, says Almac's Downey. “One of the first ‘casualties’ of this focus tends to be a company’s packaging operations, which absorb significant headcount and can be outsourced at a lesser cost, and often, with better results than the internal solution,” Downey says.

Milestones In Contract Packaging

1996 Cardinal Health buys Packaging Coordinators Inc. launching Cardinal Health Packaging Services.
1997—Anderson Packaging opens Colt Road stand-alone penicillin packaging site at Rockford, IL.
1999—Sharp Ivers-Lee rebrands as Sharp, with expanded blister and bottling capacity in Conshohoken, PA.
2001—Anderson Packaging doubles capacity at Rockford headquarters.
2003—Anderson Packaging acquired by AmerisourceBergen Corporation.
2004—Anderson Packaging completes second pharmaceutical packaging site at Rockford campus.
2005—McKesson launches RxPak division to provide contract packaging services.

2005—Sharp Corp. expands with new 180,000 sq ft Allentown, PA, facility, with 29 production suites and 14-story warehouse.

2007—Cardinal Health Packaging Services acquired by the Blackstone Group and renamed Catalent.

2008—Howell Packaging launches the Howell Marketing Services division with a new facility for distribution of pharmaceutical samples and patient starter kits to physicians.

2008—United Drug acquires Sharp Corp.

2008—Anderson Packaging expands facilities at corporate headquarters to 720,000 sq ft, bringing Rockford location to 8 facilities totaling over 1-mm sq ft.

2009—Amcor buys Alcan Packaging Global Pharmaceutical Packaging from Rio Tinto.

2009—Vetter launches Vetter Secondary Packaging facility in Ravensburg, Germany, for fully automated secondary packaging of prefilled injection systems.

2010—Anderson Packaging expands at Rockford, adding bottle, blister pack, and walleting lines, with expanded capabilities in cold-chain storage, parenteral packaging, and kit assembly.

2010—Vetter launches fill-finish capacity for vials, syringes, and cartridges in a new 24,000-sq-ft Skokie, IL, facility

2010—Sharp joins the TraceLink Network to provide customers with shared visibility into production processes, following the service’s adoption by Catalent Pharma Solutions.

2010—Almac Pharma Services expands UK commercial manufacturing, packaging, and analytical facilities; increases UK production six-fold with a client-dedicated facility supplying expanded distribution in Europe of powder in sachet presentation.

2010—Catalent Pharma Solutions introduces media enhanced packaging with Digimarc watermarks scannable by smart phones.

2010—Sonic Packaging launches iDE (Integrated Design and Engineering) division for package development and contract filling of single-use delivery systems.

2010—Pharma Tech Industries adds new controlled production facilities to meet growth in OTC and prescription drug formulation and packaging.

2010—Legacy Pharmaceutical Packaging teams with Bayer Pharmaceutical Manufacturing Services to offer an end-to-end outsourced solution.

2011—McKesson’s RxPak launches the Burgopak compliance package in the United States.

2011—Ropack opens 15,000-sq-ft facility for stick packaging in Montreal.
2011—Packaging Insights & Carton Services rebrands as Pharma Packaging Solutions, expanding small batch size capacity and digital printing services.


2011—Ruspack enhances packaging facilities and blister equipment, supporting a rapid-response culture.

2012—Daiichi Sankyo shifts to in-house packaging for U.S. markets with the purchase from Amcor of the former Alcan Packaging facilities in Bethlehem, PA.

2012—AndersonBrecon is formed, aligning the packaging services of Anderson Packaging and UK’s Brecon Pharmaceuticals, as a business unit of AmerisourceBergen Consulting Services.

2012—Almac Pharma Services readies outsourcing commercial packaging services for pharmaceutical and biologic primary and secondary packaging in 100,000 sq ft at Audubon, PA.

2012—Frazier Healthcare buys Catalent Pharma Services, rebranding the business as Packaging Coordinators Inc. (PCI).

2012—Legacy Pharmaceuticals packages drugs for Walmart in the Eco-Slide RX compliance package from Keystone Folding Box Co.

2013—Sharp Corp. expands Allentown plant by 50,000 sq ft of packaging suites.

2013—Almac Pharma Services announces opening of U.S. commercial packaging facilities at Audubon, PA, with a successful cGMP inspection by FDA concurrent with its first U.S. commercial packaging client for bottle and blister packaging.