

INNOVATING TO SURVIVE



Left: A&E's Dongmei plant.
Above: Winding thread.

At one time, the United States of America was the largest footwear producer in the world. In 1968, there were over 1,000 manufacturing companies. Some were huge with many large factories equipped with multiple production lines. Today, there are less than 300, many of which are very small specialised producers.

Some larger ones had the financial strength to transform themselves into brands sourcing their products from low labour cost countries. Most perished, including the suppliers that had formed the backbone of the industry. A few, however, transformed themselves to fit into the emerging global industry.

While World Footwear has looked at most of them in more detail in past issues, bringing them all together shows that despite their differing backgrounds, the way they have all managed to innovate has made it possible for them to survive and prosper.

JOINING ANOTHER INDUSTRY

American & Efird, Inc. is a good case in point. In 1970, it had been a major knit yarn producer for 70 years under various changes of name. Now, it was owned by the Ruddick Corporation which had a New York Stock Exchange listing and other commercial investments. It was successful and had a strong financial base.

The 1970s, however, saw a period of consolidation and increasing foreign competition in the US textile industry. A&E's management realised it needed to adapt and so turned the balance of its production over to sewing thread for both

industrial and consumer applications. It then won a contract to supply threads to Levi-Strauss in Hong Kong. This soon led to further sales to Levi around the world through warehousing operations and then producing locally. The company also began to sell to other major apparel suppliers until sales finally peaked at \$378 million in 1997.

From then on, the sewn products industry softened rapidly at home. Despite the overseas expansion, a majority of sales were still generated in the USA. By the new millennium the US apparel, textile and home furnishings industries—A&E's principal markets—were being destroyed by overseas competition. The company needed a new outlet and, while many had turned their backs on the US sewn products industry—including footwear—A&E saw it to be a great opportunity.

The company had tremendous expertise in spinning industrial threads. This was harnessed to further develop Anafil nylon and Anafil polyester filament threads. Using high tenacity yarns, state-of-the-art precision plying and twisting, computer controlled pressure dyeing, high-speed winding with computer controlled lubrication application and the latest resin bonding process, it equipped itself to compete in the highly competitive footwear and leather goods sector. It also introduced a wide range of thread types including type 6,6 monocord nylons, ready wound bobbins and other high performance products to serve the footwear industry in particular. Quite a revolution for a company that had previously concentrated on apparel related sales.

A&E now believed it could produce threads that would outperform those produced in Asia. Typical local thread was made from nylon 6, as opposed to nylon 6,6. Furthermore, bonding and sewing lubrication tended to be inconsistent. Using ANETRAK software to analyse thread performance in potential customer factories, the company was able to demonstrate up to 26% greater efficiency and output. This belief, supported by the ANETRAK results and a need to support growing Asian sales, persuaded management to invest heavily in building a state of the art facility near Dongguan in southern China (Dongguan Dongmei Thread Company) which also included the production of filament threads for footwear.

Although late in coming into the Asian footwear industry and not always the least expensive compared to local producers, A&E has progressed rapidly. While this is partly due to its thread quality and performance, there are other important contributing factors. One is ANECOLOR whereby A&E's dye houses are linked worldwide to produce total colour consistency wherever a thread is produced or used. A Filament Colour Pallet of over 600 colours and a data base with thousands more are now available so that Dongmei can 'dye to match' in three days, a useful competitive advantage.

A&E has also been a leader in environmental factors for over a decade and its environmental health and safety procedures and code of conduct are features that major brands increasingly

value in a supplier. A&E's technical service group regularly visits customers to assist them in maximising stitching performance and output. The global retail solutions team conducts free technical seminars and workshops at brand, sourcing office and retail levels to help customers get the best out of their thread.

A&E can supply any thread you may need, anywhere, in any colour and in double quick time. Faced with an industry shift, the company had the courage to take a major strategic decision to change its product, focus on the footwear industry and back it with significant investment. That it worked is beyond question. A&E now has 37 manufacturing and 54 service centres spread across 50 countries; quite a success story.

IDENTIFYING A NEED

Jim and Donna Sheehan had already spent over 25 years selling textiles to the footwear industry when they founded Sheehan Associates in 1992. The fashion sector which had been the major consumer was fast being replaced by athletic shoes. Much of the technology used in them, however, had failed to keep pace and heat and moisture build-up was a major problem. Could advanced textiles be the answer?

The Sheehans thought so and, selecting some of the best remaining textile mills, they developed a range of performance textiles specifically aimed at improving foot comfort. They targeted their marketing by emphasising the technical and innovative aspects of the new fabrics while also ensuring they covered the widest possible range of ➤



Camouflage boot by Wolverine using fabric from MTEX

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applications in order to attract volume sales.

The normal approach to this comfort problem was to try to remove the moisture that resulted from heat build-up. The Sheehans sought to reduce it in the first place. The result was etc. which has a special knit pattern that reduces friction between the foot and the inside of the shoe, a major cause of heat build-up. A perfect example of how radical thinking can create a unique product.

While etc. remains a major line, the company continues to research new and eco-friendly technologies through its R&D programme carried out on both sides of the world depending on product and market. The Sheehans believe that in order to succeed, you must "develop future products today, and avoid jumping on any bandwagons".

BUILDING ON OLD SKILLS

Another successful textile supplier went a different way. Emtex had specialised in producing laminated duck-weave cotton for Florida's sneaker factories. When this business vanished to Asia, senior managers Bob Livingston and Joe Tutrone bought the company in 1985, believing they could still make it pay by developing its skills and experience to laminate new and more advanced materials.

They succeeded and today Emtex laminates fabrics and meshes for major sports shoe brands Cordura, nylon and polyester fabrics for hiking and hunting boots, as well as upper fabrics and linings for casual shoes. In addition, it has protective products such as Snakeguard and Thornshield for hunters, farmers, overhead linemen and other active outdoor workers.

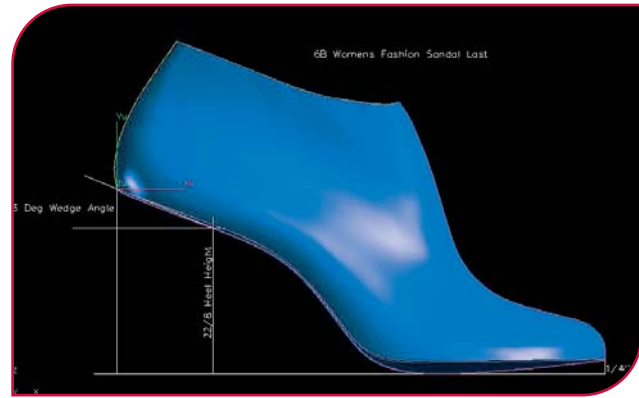
The fact that these materials could be processed using standard shoemaking machinery and techniques made it easy for Emtex to follow the progress of footwear production throughout Asia. At the same time, it also set out to supply specialist domestic producers and is now a major supplier of materials for US military and outdoor footwear.

All marketing and product development is located in the USA, with laminating in the Far East in order to remain competitive in world markets. In this respect, it is like the brands it supplies. Manufacturing close to major outsource suppliers also simplifies the supply line. In this instance, a combination of developing existing skills allied to good strategic production planning has enabled Emtex to remain a successful supplier to the footwear industry.

INNOVATIVE TECHNOLOGY

Jones & Vining Inc. began manufacturing lasts in 1930 when there were 40 companies producing over 5 million pairs of wooden lasts per year. Today, it is the only one left in the USA. Over the years it has also diversified through technical innovation into become one of the world's most successful shoe component manufacturers and distributors.

The big break came in 1984 with revolutionary Compu-Last which offered a fully integrated, computer-controlled last production system that guaranteed consistent accuracy of shape, grade and fit wherever the footwear was produced.



Compu-Last model.

Brands liked the fact that it also halved development time. There are now six model rooms and production last plants spread around the world.

Involvement in the Far East led to other technical innovations, the first of which was a new method of casting more dimensionally accurate aluminium lasts for vulcanising. This was followed by a heat-resistant polypropylene copolymer plastic coating that could be applied to Compu-Last plastic lasts so that they could also be used for vulcanising.

The company was at the forefront in developing moulded sole units, firstly in PVC, TPR and PU and, more recently, with an advanced blown-PVC called Herculaire. In 2001 it introduced Emax, a micro-cellular material that overcame many of EVA's shortcomings in sports shoes by offering better abrasion resistance, energy management and cushioning. It could also be compression moulded, which made it popular in the Far East where this process was widely used.

J&V is probably best known however for its cushion foam insoles based on the Poliyou system, an open cell crystalline polyurethane material that provides excellent cushioning while wicking perspiration away from the foot. Further foam materials have been added over the years that offer additional benefits such as higher energy return, shock absorption and shape memory capabilities.

Bi-Fit, another very clever insole product, appeared in 2003. This is true 21st century eco-friendly technology as it is made from 80% recycled plastic bottles. It can be produced in varying grades of softness or hardness so an insole can have a flexible forepart and a rigid backpart. It is again easily pressure moulded even so far as to eliminate the need for a shank.

In all these stages of product development, the company was careful to ensure that the technology involved was designed for ease of manufacture. Add this to sheer inventiveness in terms of product development and it is easy to see why Jones & Vining has grown to where it is today.

BECOMING THE VERY BEST

Some survivors are much older. Seeing the potential of Goodyear welted for mass production, John Barbour opened a small factory in Brockton, Massachusetts, in 1892 and

began to manufacture leather welting. Now called the Barbour Corporation, it still makes welts and for customers all over the world.

It was not always easy however as from 1960 onwards welting was losing ground to cemented or moulded soles for mens shoes. So, in 1971, Barbour began to produce extruded PVC welting as a cheaper substitute for what remained of the Goodyear market in the USA. As demand steadily fell for this product also during the 1980s and 90s, it diversified and now has the largest range of extruded mouldings, trims and structural components for boat-building in the USA.

At the same time, it also returned to its roots. Despite a shift in the majority of shoe production to low-cost countries, it became apparent that a niche remained with the world's top quality companies who needed high quality leather welting. The answer was to make a product that was the very best in terms of quality, consistency and performance. Once this had been achieved, efficient world wide distribution was established, in the course of which, Barbour acquired its two main competitors W.L. Johnson Co. and L. Farber.

Forty years ago, the company faced potential disaster as did so many others as their traditional market evaporated. In this case, it diversified in order to provide financial stability and then concentrated on what it knew it could do best in order to reach a new but very demanding market segment. No detail is too small for Barbour; its unique machines have been developed in-house, the leather it uses is specially selected and tanned and, not least, its customer service is second to none. The company is still family owned and managed, and perhaps this has also contributed to making Barbour the leading company in its field in the world.



Struck through and surface dyed laces by Auburn.

PLEASING THE CUSTOMER

Auburn Leather is one of the world's leading producers of leather laces and is even older than Barbour, dating back to 1863. It is still owned by the founding Caldwell-Howlett family and recently saw a 6th generation member join the business. Such longevity is remarkable anywhere but in the US footwear industry it must be unique. So how have they managed to survive for so long?

First, the family has always had a totally hands-on management philosophy and a deep practical knowledge of their product. Second, the company has its own tannery and uses only its own leather tanned to its own specifications. This has proved an invaluable asset in maintaining the extremely high standards of quality and uniformity for which the company is known.

The market for leather laces today is highly specialised and colour-matching plays an important part. Auburn will dye any quantity to any colour. A customer need only send a sample of upper leather or quote a Pantone number to receive laces that are an exact match. Laces also take up little space and are therefore easy to airfreight, so most are still produced in the USA. However, the ever increasing use of China as a source for volume runs of footwear has led the company to open an operation there to produce the more standard colour lines. Even so, they are still all cut from Auburn's own leather.

Once again, we have a company that has taken what it knows best and has continuously sought to raise its standards in terms of materials, manufacture and customer service to the very highest levels possible. Nevertheless, Lisa Howlett, the 5th generation company president, is still not satisfied and this is perhaps another Auburn secret: good leadership.

SEIZING AN OPPORTUNITY

All the companies looked at so far have been materials or components suppliers throughout their entire existence. Quality Corrections & Inspections is different. In the early 1980s, a company called Quality Casuals was making a mix of men's and women's shoes. The owners, Ron and Doris Burk, could see the writing on the wall as imported footwear from low cost countries took an ever increasing share of their business. Not big enough to create a brand themselves, they looked for another solution.

One thing they discovered was the number of quality issues that only became apparent once many of these imports had been landed. They had the technical knowledge to remedy these faults, so why not set up a company to offer a remedial service? They did and in 1986 started Quality Corrections & Inspections. It proved to be just what many importers were looking for and, as the level of imports grew, so it also grew.

Imported shoes may suffer from poor construction, stitching or leather finish, through to damage caused by mould, odour and stains picked up during shipping. There can also be badly marked cartons, incorrect packaging, labelling and ticketing or wrong country of origin or ➤

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content labels. And, lastly, they may be counterfeit. Problems such as these cause port delays and headaches for everyone involved.

Returning goods for repair or replacement is usually too expensive as most retailers only have a window of about one or two months in which to turn stock. Sending shoes back inevitably leads to delay and lost sales revenue. Destroying them is a no-win situation as floor space and advertising budget have already been allocated. Cancellation can prove fatal to business relationships for all concerned. Refurbishing avoids the need to re-order, a key advantage in peak periods.

This is where QCI helps importers, wholesalers, manufacturers, retailers and catalogue businesses recover potentially lost profits by transforming faulty goods into quality, saleable merchandise. It offers cost effective solutions to problems that may have arisen during manufacture or shipping and the tight deadlines and strict quality control specifications often set by its clients. It is essentially taking 'dead' stock and turning it back into profit.

QCI is very flexible and can help ease production overloads during a company's peak season when many shipments are likely come into port. It is always a race against the clock so, if a client finds a problem, it sends in a sample and specification. A rapid response team devises a corrective plan and a cost analysis and time audit are calculated. If accepted, action is immediately taken.

Experienced multi-skilled staff is essential and QCI's team includes inspectors, auditors, proficient shoemakers, seamstresses, dry-cleaners and other repair experts covering a wide spectrum of services including inspections and audits (including military acceptable quality level), repairs, reworks and total destruction. The company also has the equipment to carry out all the functions required of it.



QCI founders Ron and Doris Burk.

TAKING A BALANCED DECISION

It is of course the importer's final decision but, as QCI's Global Sales Director Doug Easley says, "Think carefully before discarding damaged goods at the port or cancelling an order and sending it back. While you might get your initial investment back, you might also lose an unhappy retail client who may go to the nearest competitor to get the back-ordered product. To 'over promise and under deliver' is the worst mistake in ensuring overall customer satisfaction and loyalty."

QCI also markets its services directly to Chinese manufacturers and Hong Kong and Taiwan trading agents, so recommendations can come from both suppliers and importers. Many footwear brands have diversified into apparel, leathersgoods and other products. If they suffer the same difficulties here, they naturally tend to turn to the same problem solver. Employees moving to other brands often take QCI's reputation with them to spread the net still further.

It took courage for Ron and Doris Burk to leave manufacturing and gamble on imports dominating the US footwear market and that many would have defects that needed someone to inspect and repair them. That they were correct has long been apparent. Today, QCI has diversified into apparel and general merchandise and services such as pick-and-pack warehousing and storage and labour outsourcing for industrial plants where there may be a production overload requiring outside assistance. What is also true is that their ongoing close involvement has kept the company continuously moving forward.

These companies are different in so many ways. Size, complexity, products, markets and strategies all vary according to individual needs. What they do have in common—whether family owned or part of a large corporate structure—is that a group of people had an idea and relentlessly pursued it forward. That willingness to innovate is the key to survival and, in the case of these seven American companies, their success in today's global footwear industry. 🌐