

# RAVEN™

| Issue No. 7 |



 sunbrella™



New Brand Identity Created for Sunbrella® | 2



Dear Readers:

We are pleased to bring you the seventh edition of our Raven magazine. This issue, more than any other, illustrates essential qualities about our company.

The cover story focuses on a new identity for our Sunbrella® brand. A new logo unveiled this fall provides a more contemporary look and better reflects the increased styling sophistication and breadth of applications today. Our familiar umbrella has morphed, but continues to symbolize trust and protection.

Also in this issue, we are pleased to focus on Treasure Garden, the world's largest manufacturer of umbrellas and a long-term Glen Raven customer. Several of our colleagues were honored to participate this fall in the grand opening ceremonies for Treasure Garden's new plant in China, which also marked the company's 25th anniversary.

A profile of Scott Gillam, vice president for strategic initiatives, illustrates how our company is committed to a broad view of global markets. Scott is leading efforts as diverse as energy conservation and inventory management. His collaboration with colleagues throughout the company is making Glen Raven stronger and more responsive to customer needs.

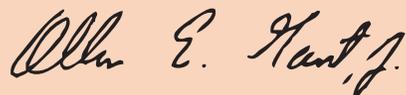
I have written and spoken about the importance of innovation countless times, and two articles in this issue illustrate this concept in action. Glen Raven Custom Fabrics, the organization behind our Sunbrella brand, has just completed a three-year research and development project that has created a "Next Generation" Sunbrella that increases water repellency by 25 percent with no loss in breathability. In addition, our Technical Fabrics subsidiary is achieving 20 percent of its annual growth through the development and commercialization of new products.

Our company has always been a good environmental steward and you will read about how our Anderson, S.C., plant is now landfill free, resulting in an environmental excellence award from the state of South Carolina. Global expansion continues to be a driving force for our company and is reflected in an article on how our Strata subsidiary is supporting the construction of a 6,000-mile highway system in India.

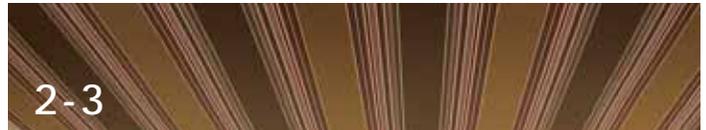
The concluding article in this issue describes our efforts in support of employee health and wellness, and you will meet three associates who have benefitted directly from this program. We are investing in the health of our associates through a pro-active program because we know a healthier workforce is a more productive and quality-focused workforce, which ultimately benefits all of our customers.

These are exciting and extremely challenging times for us and for all of our customers. With this issue of the Raven, I hope you gain a sense of our confidence for the future and our commitment to your success.

Through continual innovation, a focus on customer relationships, global business expansion, brand building and support for our associates, Glen Raven is continuing to strengthen our organization. We will be here for our customers in the good times and in the challenging times.



Allen E. Gant, Jr.  
President and CEO  
Glen Raven, Inc.



# NEW BRAND IDENTITY CREATED FOR SUNBRELLA®



Marketers like to refer to brands as “living and breathing,” emphasizing the need for successful brands to adapt over time to meet new challenges and to capitalize on new opportunities. This fact of life in marketing leads to periodic brand repositioning and re-launches.

America’s best known performance fabrics brand – Glen Raven’s Sunbrella® brand – is undergoing just such an identity update with the introduction of a new logo and visual system. The goal is to acknowledge Sunbrella’s rich 50-year heritage, while reflecting a continuing focus on how Sunbrella enhances today’s consumer lifestyles through performance, innovation and sophisticated styling.

From its introduction in 1961 until the mid 1980’s, Sunbrella fabric was primarily used for awning and marine applications, which gave rise to the familiar multi-colored umbrella. This logo continued to serve the brand well as it expanded into casual furniture in the mid to late 1980s.

“Because Sunbrella is such a well-known brand, we wanted to retain elements that people are familiar with and trust, yet give the identity a refresh that better reflects where Sunbrella is today and where it’s headed for the future.”

Hal Hunnicutt

Over the past several years, however, the styling sophistication of Sunbrella has taken quantum leaps through jacquard weaving, unique yarn combinations and advanced fabric finishes. Sunbrella has helped transform the patio to the “outdoor room,” and is growing in popularity as an interior fabric offering easy care, fade resistance and elegant styling such as velvet and sheers.

The new Sunbrella identity is designed to better reflect comprehensive Sunbrella product offerings today. The new logo features a more contemporary look, reflective of the brand’s evolution as a performance fabric with a sense of style for outside and inside the home, as well as boating and many other applications. Sunbrella’s distinctive yellow, red and blue umbrella has morphed into a stylized umbrella, symbolizing the trust and the protective qualities long associated with the Sunbrella brand.

The type face for the new Sunbrella logo is updated with a cleaner, more contemporary look. The logo utilizes a new signature

color – a contemporary deep orange – conveying the brand’s growth in fashion-forward styling.

More importantly, the logo is combined with a visual system that ties together all applications and markets. An awning sample book, indoor furniture hang tag, marine brochure and outdoor furniture advertisement will all have visual cues that identify them as part of the Sunbrella family.

“When the previous logo was introduced, Sunbrella fabrics were primarily solid colors and broad stripes for outdoor applications in awnings and patio furniture,” said Hal Hunnicutt, vice president of marketing for Glen Raven Custom Fabrics.

“Sunbrella has progressed dramatically during the past decade not only in performance enhancements, but also in styling that includes jacquards, chenille, velvet and sheers, along with innovative new looks for awning fabrics,” he said. “Because Sunbrella is such a well-known brand, we wanted to retain elements that people are familiar with and trust, yet give the identity a refresh that better reflects where Sunbrella is today and where it’s headed for the future.”

The new brand identity debuted simultaneously during the IFAI Expo, a leading trade event held this fall in Charlotte, N.C., and the High Point Furniture Market. Glen Raven also unveiled 28 new awning styles – its most extensive new introduction of awning fabrics ever – along with details concerning significant performance enhancements and an extended warranty.

“There could not have been a better time to unveil a new look for Sunbrella than this year’s Expo,” Hunnicutt said. “Glen Raven trademarked its first awning fabric 100 years ago. The new awning fabrics, breakthrough performance enhancements, warranty extension, and the new customers introducing Sunbrella programs at High Point all signify that the brand is stronger than ever before.”

The new brand identity is being phased into various marketing elements over the next several months, including advertising, Web site, packaging and collateral materials.

The new Sunbrella® logo, top right, represents a contemporary update for America’s best known fabric brand. From its origins as a new type of awning fabric, Sunbrella has progressed dramatically in recent years in terms of enhanced performance and styling sophistication. From outdoor rooms and sailing yachts to the interiors of America’s finest homes, the Sunbrella brand continues to advance with performance, color and styling.



## SUNBRELLA WARRANTY EXTENDED

In a display of confidence for the durability of Sunbrella® awning and marine fabrics, Glen Raven Custom Fabrics is doubling the limited warranty period for color fastness and durability to 10 years. The limited warranty for furniture fabrics is being increased from three years to five.

“Sunbrella fabrics have historically performed well beyond our warranty periods,” said Hal Hunnicutt, vice president of marketing for Glen Raven Custom Fabrics.

“Our constant development and testing of Sunbrella fabrics gives us the confidence to offer significant extensions to the best backed warranty in the industry,” he said. “Our goal is to add even more value to our brand for the benefit of our customers and ultimately for consumers.”

The new awning and marine limited warranty program provides replacement cost value for eight years. During the ninth year, Glen Raven will extend a 30 percent discount on replacement fabrics and a 15 percent discount in the tenth year. The new limited warranty for furniture fabrics provides for 100 percent replacement value through the fifth year of service.

The new limited warranty program became effective on November 1 and applies to both color fastness and fabric strength, generally referred to as “serviceability.” Glen Raven technical representatives typically review each warranty claim on site.

“Our customers know that we address warranty claims on a timely basis and do whatever possible to assure everyone’s satisfaction,” Hunnicutt said. “The extension of the limited warranty periods reflects significant performance enhancements in our fabrics and even greater confidence in the durability of Sunbrella.”

## TREASURE GARDEN CELEBRATES 25TH ANNIVERSARY WITH NEW PLANT OPENING



4

After mastering the craft of umbrella making as a child working in the family business in China, Oliver Ma decided to seek his fortune in America. Arriving in the U.S. in 1980 with two suitcases and a limited English vocabulary, he was prepared to make up for his lack of material possessions with drive, determination and vision. Migrating from New York to Los Angeles in 1984, Ma founded his own company, Treasure Garden.

“Since my childhood, shade has been my passion,” he said. “I learned early in life the value of paying great attention to the details, having a solid work ethic and making the best quality products.”

Those fundamental values have consistently served as the foundation for Ma’s company, which has grown into the largest manufacturer of shade products in the world. Celebrating its 25th anniversary, Treasure Garden recently opened its second manufacturing center in Qingdao, China.

Headquartered near Los Angeles, Treasure Garden has flourished throughout its quarter-century history because of

its focus on innovation, customer service and meeting ever changing consumer needs with just the right products at just the right time. The company has dozens of global patents, leading the way with innovations that have made shade structures easier to operate, more attractive and longer lasting.

“As our industry continues to shift and evolve, we must evolve with it,” Ma said. “Today’s consumer is different than yesterday’s. Perhaps the two most important factors to any successful business is a quality product delivered in a short amount of time, as well as a steady stream of fresh new products.”

Treasure Garden also has long-standing customer and supplier relationships based on shared values of innovation, quality and responsive customer service. One of the most important of these relationships is with Glen Raven Custom Fabrics. From its founding in 1984, Treasure Garden has featured Glen Raven’s Sunbrella® fabrics.

“Sunbrella is one of the most recognized names in the industry, and is often requested by name by consumers,” Ma said. “It is the benchmark by which all other fabrics are compared.

# 青岛万汇遮阳用品有限公司开业庆典

Qingdao Aactiva Shade Inc. Grand Opening Ceremony



Being able to offer a selection of quality fabrics to our dealers is perhaps one of the most important factors in our business, and at the top of that list is Sunbrella.”

Glen Raven and Treasure Garden have partnered on joint marketing programs over the years designed to grow the shade products market. The most recent effort by the two companies is a campaign that is helping retailers enhance their merchandising practices.

“Being able to offer a selection of quality fabrics to our dealers is perhaps one of the most important factors in our business, and at the top of that list is Sunbrella.”

Oliver Ma

“Treasure Garden and Glen Raven have grown together into positions as industry leaders over the past 25 years,” said Dave Swers, vice president and commercial business manager for Glen Raven. “At the time that Oliver founded his company in the early 1980s, Glen Raven was also new to the casual furniture industry. Oliver has built an incredibly successful company because he is a master of international business.”

Treasure Garden’s new manufacturing campus in Qingdao, China, about 500 miles north of Shanghai, is further streamlining and enhancing the company’s efficiency. While both of Treasure Garden’s plants in China (the other is in Ningbo) are vertical and independent operations, they share similar processes and capabilities that create synergies. Both plants are strategically located in close proximity to China’s deepest sea ports.

Glen Raven has followed a parallel manufacturing strategy in China, opening a multi-faceted business center in Suzhou, about an hour west of Shanghai, during 2006. Glen Raven

created its marketing, product development and manufacturing center in China to be closer to the growing number of casual industry manufacturers in China, such as Treasure Garden.

“Glen Raven’s China operation is definitely a great help to Treasure Garden,” said Margaret Chang, Treasure Garden chief operating officer. “In the past, we had to ship fabrics from the U.S. to China by containers and it took four weeks. With Glen Raven’s China operation, we bring in just what we need when we need it and we not only save on ocean freight but we also cut the lead-time to the minimum.”

Ma’s focus on responsiveness is evident throughout Treasure Garden’s operations. From relentless research and development to sophisticated custom sewing, Treasure Garden addresses dynamic needs of dealers and consumers worldwide. All the while, the value of business partnerships remains paramount.

“Now more than ever in these challenging economic times success in any business depends largely on good partnerships,” Ma said. “As with any relationship (business or personal) the key to longevity is sharing the vision of the desired goal and having a shared passion to achieve that goal. For us, it has been a ‘match-made-in-Heaven’ and we are honored to continue to grow our partnership with Glen Raven.”

OPPOSITE PAGE Oliver Ma, president of Treasure Garden, center, with Dave Swers, Glen Raven vice president, commercial business manager (left) and Hua Li (Wally), general manager, Glen Raven Asia, during grand opening ceremonies for Treasure Garden’s new plant, which is depicted in an architect’s rendering. ABOVE Ceremonial ribbon cutting for the new plant.

**SCOTT GILLAM  
OFFERING PERSPECTIVE  
OF EXPERIENCE**





In the morning, it might be a meeting to consider new energy conservation technology. Over lunch, the conversation is likely to center on optimizing global inventories. Late into the afternoon, he may be standing in a hallway chatting with a colleague about global issues of sourcing and supply.

So is a typical day for Scott Gillam, Glen Raven's vice president of strategic initiatives. This is a relatively new position for Gillam, capping a career of more than 30 years that covers virtually every aspect of fibers and fabrics. His current position leverages his vast experience for solving issues essential to Glen Raven's continuing growth and innovation.

After earning a degree in textiles from N.C. State University, Gillam began his career with a warp knit company where he served for eight years. Then, in 1977, he accepted a position with Glen Raven as technical director of the company's Burnsville plant, which is located in the North Carolina mountains near Asheville.

For the next 26 years, Gillam held a number of positions in Burnsville – department head, plant manager and ultimately general manager. Gillam experienced the evolution of the textile industry first hand within the walls of the Burnsville facility.

"When I arrived in Burnsville, we were still weaving with shuttle fly looms," he recalled. "From there it was rapier looms, then air jets – first, second and third generation air jets. The business grew by a factor of 10 or 12."

The nature of the operations at Burnsville changed with the technology. From an operation manufacturing commodity fabrics 24/7, Burnsville morphed into a weaver of highly technical fabrics, often with relatively short runs. End uses included military gear, outdoor products, flag cloth, sailcloth, protective apparel and luggage fabrics. Change became the mantra for a highly skilled workforce with a legendary work ethic born and bred in this small North Carolina mountain community.

"The Burnsville plant has its own culture," he said. "The people care about their jobs, the company and each other. We had a lot of good people in Burnsville who embraced the changes that came with new technology. I truly enjoyed being on the front lines in Burnsville. It was a new challenge almost every day and I enjoy the challenges that come with change."

Change is central to Gillam's current position at Glen Raven company headquarters. He serves as a company-wide resource, cutting across division lines and encouraging colleagues to exit from their departmental silos. The job is equal parts consultant, coach and team leader.

"The thing I like most is being able to interact with all of our divisions and locations," he said. "This position offers an opportunity to have an impact that affects the overall direction of the company."

Gillam, who also serves on the Glen Raven Board of Directors, is focused on several strategic areas, including energy conservation, waste reduction, inventory optimization and supply chain enhancement.

In terms of energy conservation, Gillam joined a team that had been working to achieve significant energy savings at the company's Park Avenue finishing plant. With energy costs continuing to increase each year, the challenge is to reduce the energy component of every yard of fabric Glen Raven produces at every facility.

Waste reduction is also a strategic initiative for Glen Raven. Through recycling and repurposing of fibers and fabric, the company is reducing landfill wastes and holding costs in line. Gillam is focused on the adoption of best practices related to energy conservation and waste reduction throughout the company.

"The thing I like most is being able to interact with all of our divisions and locations."

Scott Gillam

Glen Raven's potential for inventory optimization has been greatly enhanced with the creation of the Tri Vantage distribution unit, the result of the acquisition and merger of two national distribution organizations, The Astrup Company and John Boyle & Company.

"We are working with the production planning group to develop systems that will help us free up working capital while assuring a customer order fill rate of 90 to 95 percent," he said. "Tri Vantage has opened unique opportunities for us in this area that will ultimately benefit all of our customers."

Supply chain issues have become increasingly important to Glen Raven as it has grown into a global company. Developing the right strategic approach to markets worldwide has become even more important as escalating energy costs make long-distance transportation of raw materials and finished goods prohibitively expensive.

"One of the first strategic issues I was assigned was to look at the cost of moving goods around the world and determine the most competitive approach for serving each market," he said. "We have manufacturing in the U.S., France and China and our goal is to serve the world in the most competitive manner possible. In terms of cost and delivery times, we are fortunate to have disbursed business centers."

OPPOSITE PAGE Scott Gillam, Glen Raven vice president of strategic initiatives, conferring with Fred Rogers, director of planning and logistics. ABOVE Gillam with Donald Winbrow, manager of strategic initiatives, and Patti Bates, vice president of operations for Technical Fabrics.

## RESEARCH AND DEVELOPMENT LIVING IN A WORLD OF 'WHAT IFS'



8

**J**ohn Coates and the Glen Raven research and development team that he leads live in a world of “what ifs.” What if we can create a fabric that is more fade resistant? What if we can develop technology to make fabrics more durable and easier to clean? What if we can increase quality and production efficiency?

More than three years ago, Coates, vice president of research and development, posed one of the ultimate questions related to performance fabrics. “What if we could make Sunbrella® fabrics more water repellent without sacrificing breathability?”

For experts in performance fabric development, this question is similar to asking “What if we created a way for people to achieve physical fitness without ever having to exercise?” The issue basically defies conventional wisdom and logic. Fabrics that are highly water repellent, such as vinyl, don’t breathe. Fabrics that breathe, such as cotton, are not water repellent.

Glen Raven, however, has a long history of defying conventional wisdom through innovation and hard work. The R&D team based at Glen Raven’s Anderson, S.C., plant took on the assignment with some trepidation, but also with confidence that if anyone could do it, it would be this team.

“One of the great advantages we had going into this project is the fact that we are a vertically integrated manufacturer,” Coates said. “We control every aspect of the manufacture of Sunbrella fabrics, beginning with specifications for the polymer chemistry used for fiber formation. We believed that the answer to greater water repellency with no loss of breathability would be found somewhere along the production continuum.”

As a woven product, Sunbrella fabrics have long been known for breathability. Air can pass through the fabrics, which allows for fast drying and helps to discourage the growth of mold and mildew. When it came to water repellency, however,

Sunbrella awning and marine fabrics performed well, but there was room for improvement.

Coates' team began an intense review of every aspect of the production process and determined that the answer was to be found in improvements all along the line. Fiber chemistry was tweaked, yarn preparation adjusted and enhancements made for weaving and finishing.

"Our test results show that no other acrylic product on the market today offers the combination of water repellency and breathability of 'Next Generation' Sunbrella."

John Coates

"It was not just one thing - no 'aha' moment," Coates said. "Through technical changes at every step of the production process - fiber formation, yarn manufacturing, weaving and finishing - we have created a product that no one thought possible only a few years ago."

The result of the R&D team's efforts has been named "Next Generation" of Sunbrella fabrics. The bottom line result is a 25 percent increase in water repellency with no loss of breathability.

"The Next Generation of Sunbrella awning and marine fabrics represents a significant breakthrough," Coates said. "Historically, it has been extremely difficult, if not impossible, to enhance water repellency in a performance fabric without reducing breathability. After several years of intense development work, we have created a new fabric which shifts this paradigm."

In addition to increasing water repellency with no loss in breathability, the Next Generation of Sunbrella awning and marine fabrics also offers enhanced quality, greater strength and increased production efficiency. Sunbrella's legendary

fade resistance and ease of cleaning continue at the same levels in the Next Generation product.

"Increased production efficiency and improved quality enhance our responsiveness to customer needs," said Sam Lynn, a leader on the Next Generation research team. "Awning and marine fabricators and their customers will appreciate the full range of improvements in a product that was already considered the industry standard for quality."

Glen Raven began producing the Next Generation of Sunbrella fabrics earlier this year, and all fabric currently in inventory and distribution represents the improved fabric. Glen Raven chose this approach so it would not obsolete current dealer inventories.

"We have over the past few months noted a decrease in the number of questions from customers related to water repellency," said Alan Rampey, director of technical services for Glen Raven. "While we subjected Next Generation Sunbrella fabrics to extensive lab testing, it is the experience in the field that really counts. From this initial positive response, we are confident that the new Sunbrella fabrics will result in increased customer satisfaction."

According to Coates, the new Sunbrella awning and marine fabrics offer the highest performance in the industry.

"We have conducted extensive testing of the Next Generation of Sunbrella fabrics in comparison to our previous offerings and to competitive products," Coates said. "Our test results show that no other acrylic product on the market today offers the combination of water repellency and breathability of 'Next Generation' Sunbrella."

OPPOSITE PAGE John Coates, Glen Raven vice president of research and development, with Kathy Gentry, lab technician, testing the water resistance of Next Generation Sunbrella® fabrics. BELOW LEFT Alex Crawford, development engineer, reviews enhanced construction of Next Generation Sunbrella. BELOW RIGHT Sam Lynn, a leader on the Next Generation research team, subjects fabric to water misting test.



# GLEN RAVEN ANDERSON, SC, FACILITY GOING 'GREENER'

"As we advance best practices in all areas of our operations each year, we also use state-of-the-art approaches to enhance our environmental performance."

Jack Woodson



**G**len Raven's Anderson, S.C., facility adopted a "green" focus long before this term worked its way to the top of the environmental lexicon. It began in the early 1990s with planning for an ultra-modern, one-million-square-foot, vertically integrated facility for Sunbrella® fabrics.

Machine and equipment manufacturers from around the world were invited to present options for the new plant. Energy efficiency was among the top evaluation criteria that Glen Raven engineers used for every choice made for Anderson plant. The goal was to create the most efficient center possible with an environment that would promote product quality and employee health.

From the first days of operation in 1995, the Anderson facility has captured all of its acrylic fabric and fiber waste, a valuable commodity for other applications. Recycling was also a focus for larger items, such as wood palettes, but landfills were still receiving tons of waste from the plant each year.

Early this year, the Anderson plant began a close collaboration with a nearby recycling specialist. The two organizations completed a comprehensive review of the Anderson operation, cataloging various types of waste, setting up systems for collection, reviewing safety instructions and completing detailed cost analysis. A comprehensive recycling program was put into place and the result is zero landfill contributions today.

"Throughout our history, Glen Raven has been committed to environmental excellence," said Jack Woodson, director of operations for the Anderson facility. "As we advance best practices in all areas of our operations each year, we also use state-of-the-art approaches to enhance our environmental performance."

Recycling statistics from the Anderson plant are impressive. More than 400 tons of waste materials – from packaging and paper to light bulbs – that had been going into landfills is recycled today. The plant reclaims 500 tons of raw material waste – fiber and fabrics – for other product applications. By going to a zero landfill status, the Anderson plant has turned landfill wastes from a cost item to a revenue generator.

Glen Raven's success at the Anderson plant was recently recognized by the S.C. Department of Health and Environmental Control (DHEC), which has accepted Glen Raven as a member of the South Carolina Environmental Excellence Program (SCEEP), a voluntary initiative that recognizes facilities exercising environmental leadership in the state.

"Glen Raven's Anderson facility has shown a commitment to environmental excellence by fostering continual improvements," said Bob King, DHEC's deputy commissioner for Environmental Quality Control. "Another demonstration of support for our goal of improving South Carolina's environment is their involvement in the development of the Upstate Air Quality Action Plan."

SCEEP is a voluntary initiative designed to recognize and reward South Carolina facilities that have demonstrated

environmental performance through pollution prevention, energy and resource conservation, and the use of environmental management systems. DHEC has supported the program since its creation in 1997, and Glen Raven is one of only 31 facilities in the state to have received this honor.

Success with recycling at the Anderson plant has required efforts by every associate. Training classes provide an orientation to the comprehensive recycling effort, which includes the strategic placement of collection barrels and containers throughout the plant. Proper sorting on a day-to-day basis is essential.

While elimination of landfill waste is a major milestone for the Anderson plant, this accomplishment represents only one aspect of a total commitment to efficiency and reduced carbon footprint. Amazing savings can be found in small details.

"One of the things we have done is de-clutter the plant," said Craig Yokely, manager of yarn manufacturing. "We went into each storage and maintenance area and looked at everything we had on hand. If we didn't need the item any more, we recycled it. Everything else was put into its right place. The result has been cost savings and a more efficient operation."

One of the most innovative approaches to recycling at the Anderson Plant has been named the "Renaissance" program, which has been spearheaded by Vince Hankins, director of business development for Glen Raven. While fiber and fabric waste has always been recycled for applications such as automotive insulation, the new program has enabled Glen Raven to use wastes for higher end applications.

"With the Renaissance program we are taking fiber and fabric waste and spinning it into a yarn," said Randy Blackston, vice president of operations at Anderson plant. "This is the first time we have taken waste materials and re-introduced them into the manufacturing process. Colonial Mills has introduced a new line of rugs that are woven from these yarns, which have the look of worsted wool."

Glen Raven's Anderson plant has a number of other environmental projects under consideration – water use reduction, heat exchange systems for reduced energy consumption by boilers, high-energy light fixtures, advanced digital heating and air conditioning controls and more efficient manufacturing equipment. The plant has even adopted a stretch of highway in front of the plant for litter collection four times a year.

"We have a reputation in the industry that we are willing to try new technology, so suppliers seek us out when they want to test innovations in an actual manufacturing center," Woodson said. "Machine and equipment makers know that we will spend the time and energy to test and experiment. Plus, we have technical staffs in mechanical, electrical, chemical and industrial engineering to support innovation."

# GOOGLE CONNECTION LEADS TO STRATA GLOBAL EXPANSION

"The distance is not an issue or challenge at all. Language is not an issue and the 24 hours it takes to reach Georgia is not a factor. Some parts of India can take you 24 hours or longer to reach. It is a flat world today."

Ashok Bhawnani



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Applications



**W**ith the Indian government committed to building a 6,000-mile interstate highway system, entrepreneur Ashok Bhawnani identified a growth opportunity in his native land. This massive construction program would surely require sophisticated geogrid products to stabilize India's soils in a great variety of applications.

So, as any good 21st century entrepreneur would do, he turned to Google to research a potential business partner. His search turned up Strata Systems, a Glen Raven subsidiary and an international leader in geogrid technology with a history of international operations. Bhawnani sent an e-mail to introduce himself to Chip Fuller, Strata president.

"Ashok had been active in the fiber and textile industry in India, and I was intrigued by the opportunity," Fuller said. "I had done some work over the years with geogrid products in India so I was familiar with the market."

Additional e-mails were exchanged, followed by telephone calls, followed by a visit to the U.S. After each partner thoroughly vetted the other, a partnership was formed, Strata Geosystems (India) Pvt. Ltd., with a goal of supporting India's long-term road building program.

"Chip and I hit it off immediately," Bhawnani said. "I wanted to enter technical fabrics, and Strata was interested in a long-term presence in India. Therein lay the convergence of interests, and we haven't looked back since."

Strata's operation in India has followed a two-phased approach. During the first phase, Strata recruited a sales, marketing and engineering team, and Strata geogrid products were manufactured in the U.S. and shipped to India.

Phase II, which began this fall, has included the start-up of manufacturing in India. There is a design, sales and business office in Mumbai, the financial capital of India, and a manufacturing facility in Daman, which is about 125 miles north of Mumbai. The factory houses a warp knitter, beaming equipment and a coating operation occupying approximately 12,000 square feet. An additional 25,000 square feet is available for storage and future expansion.

"Shipping from the U.S. during the initial phases made sense to get us started in India," Fuller said. "Longer term, we had to have a facility in India, which is extremely advantageous in terms of product availability and lower shipping costs."

Fuller and Bhawnani are both enthusiastic about the long-term potential for Strata India.

"The growth potential in India, as everyone knows, is huge," said Bhawnani, a Chartered Accountant (equivalent to CPA.) "The infrastructure here is underdeveloped, but is on the government's radar screen for roads, ports, airports, townships and the overall upliftment of the population. Strata's product range has carved out a niche for itself in this market, and we are optimistic of a demand boom. At this time, we are in take-off mode."

Strata has a long history of international operations, first moving into global markets in 1997. Fuller and his team are familiar with the challenges and the opportunities for geogrid technology worldwide.

"We are definitely an internationally focused organization, which makes us right for India," Fuller said. "We understand the logistics, paperwork and container shipping. Our first international distributor was set up in Austria in 1997 and that is when I began traveling the world."

Strata currently has distributors in, Ireland, Italy, the United Kingdom, Scotland, Israel, Egypt, Algeria, Brunei, India, Australia, New Zealand, Central America and Mexico. Growth through international expansion continues as a major priority for Strata.

While Mumbai, India and Cumming, Georgia, Strata's headquarters city, are thousands of miles and 24 hours apart, Fuller and Bhawnani are not hampered by the separation.

"The distance is not an issue or a challenge at all," Bhawnani said. "Language is not an issue and the 24 hours it takes to reach Georgia is not a factor. Some parts of India can take you 24 hours or longer to reach. It is a flat world today. My children are going to schools in Wallingford, Connecticut; Bloomington, Indiana; and, potentially, Pittsburgh, Pennsylvania."

The terrain in India places Strata products in high demand. Geography is extremely varied, much like the U.S., ranging from deserts and mountains to flat plains. Much of the country is hot and humid, and the miles of railroad track, inherited from the British occupation more than a century ago, create the need for flyovers, which are known as overpasses in the U.S.

"Flyovers require compacted soil and retaining walls that start at two feet and rise as high as 40 feet or more," Fuller said. "These retaining walls require soil stabilization, and our products fit the need perfectly."

From Bhawnani's perspective the partnership with Strata and Glen Raven is based on shared values.

"Any partnership works on the foundation of integrity, dedication, understanding and acceptance," Bhawnani said. "Strata India will one day be the envy of corporate India - very similar to the status that Glen Raven enjoys in the U.S."

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OPPOSITE PAGE, TOP Left to right, Chip Fuller, Strata Systems president, and Ashok Bhawnani, director, Strata Geosystems (India) Pvt. Ltd. BOTTOM, The recently redesigned Strata Web site and a flyover in India, which requires Strata products for soil stabilization.

## NEW PRODUCT GROWTH EXCEEDING 20 PERCENT

“Our 20 percent growth target does not include process improvements such as new yarns, colors or fabric styles. These are totally new products from initial concept to production and commercialization.”

Patti Bates

**A**ny company you care to name will champion the importance of product innovation as the source of new business. Glen Raven Technical Fabrics, however, has taken this dedication to an entirely new level of importance, pegging 20 percent of its annual growth to new product development.

“We are talking about truly new products – products that have never been done before,” said Patti Bates, vice president of operations for Technical Fabrics. “Our 20 percent growth target does not include process improvements such as new yarns, colors or fabric styles. These are totally new products from initial concept to production and commercialization.”

Glen Raven Technical Fabrics has made tremendous strides in reinventing its business model over the past decade. Elements of this business unit had historically been focused on commissioned dyeing and finishing and commodity products. These businesses were very predictable and stable for many years, but off-shore competition intensifying in the 1990s made them unprofitable for U.S. production facilities. As a result, new product development focused on high-tech solutions has become the lifeblood of Technical Fabrics today.

Dr. Peter J. Brews, a business professor at UNC-Chapel Hill who has consulted with Glen Raven, described the challenge facing Technical Fabrics, and all U.S. companies in a lecture:

“Today, creativity is the only thing that really counts,” Brews said. “You invent a product or service that no one else has and you find markets and customers for it. By the time the competition has discovered what you have done, you have moved on to something new. It’s a game of constantly raising the stakes and changing the rules of the game.”

Bates describes Glen Raven’s product development process as a treadmill. As soon as you have something on the line, something else falls off, which demands replacement.

In order to thrive in this challenging environment, Glen Raven has a dedicated team of engineers at company headquarters who work closely with plant personnel. The product development process is highly disciplined, focused and collaborative.

“You can actually have too much activity in product development,” said Robert Earhart, Glen Raven product development manager. “New ideas come to us from many different sources and we begin by asking very specific questions. Who are the competitors? Why is this something we want to do? Does it make sense strategically? There are many specific things we ask ourselves before green lighting a development program, right down to costing. Many ideas never get that far, but when we decide to take on a project, we give it a total effort for success.”

Earhart and Sammy Rose, product development manager, work closely with Bates as a product development team at Glen Raven headquarters. They depend on support from

several plant-level managers, including Tony Allen at the Burnsville plant and Lucy Scott in Statesville who assist with plant-level trials.

Because of its marketing discipline, Technical Fabrics has met its 20 percent growth goal for new products. Notable successes include GlenGuard® fire retardant work apparel fabrics, radar dispersion and HaloTech™ fabrics for the military, a growing automotive headliners business and fabrics for reverse osmosis. Technical Fabrics collaborated closely with its sister subsidiary, Glen Raven Custom Fabrics, on the creation of Firesist® HUV, a flame retardant fabric for awnings.

Glen Raven has extensive manufacturing and product development capabilities in-house, and the acquisition of John Boyle & Company in May of last year added in-house lamination and coating. Glen Raven also pursues collaboration with other manufacturers who offer expertise in fibers and fabrics.

The ideal product opportunity for Technical Fabrics has specific characteristics. It must be a completely new idea, not a “me too” derivative. If there is a development partner to share in the process all the better, as has been the case with Glen Raven’s growth in headliners. The ability of Glen Raven to create barriers to entry for a product also makes a development effort more attractive.

Specific cost estimates and pricing are essential to meeting Glen Raven’s return on investment requirements. The potential for long-term customer relationships add to the desirability of new products. Glen Raven is willing to follow an extended development cycle in cases where the potential warrants the investment.

“We focus on solutions, not products,” Bates said. “Long gone are the days when someone would bring in a piece of fabric and ask ‘can we make this?’ Our approach today is ‘what is the need in the market’ and ‘can we address that need with a profitable solution?’ In some instances, our role is not manufacturing at all, but working with a partner to take a new idea to market.”

OPPOSITE PAGE, TOP Patti Bates, vice president of operations for Technical Fabrics, confers with Anthony Long, re-inspector. In foreground are product development managers Sammy Rose and Robert Earhart. OPPOSITE PAGE, BOTTOM, left to right, Earhart and Long and Rose and Bates.



## EXPANDED WELLNESS PROGRAM BOOSTING WORKFORCE



"Our core values include respect for our associates and you cannot show any greater respect than helping someone get and stay healthy."

Janice Burgess

**B**ill Atkins, a 33-year associate at Glen Raven's Burnsville Plant, was in denial. He was tired most of the time and had dizzy spells. But, he kept working every day, hoping that whatever was wrong would pass.

As it turned out, his condition did not improve and co-workers began to worry. They asked plant nurse Sharon Trcka, RN, for help. Atkins proved to be a stubborn patient, but finally gave into Trcka's recommendation for a blood test, which indicated anemia.

Trcka referred Atkins immediately to his family doctor who admitted him to the hospital for a transfusion. Atkins felt better soon after, but at Trcka's urging, he went through additional tests.

"Sharon really stayed on me," Atkins recalled. Ultimately the real cause of Atkins' anemia was located, which was a colon tumor. The tumor was successfully removed and Atkins is back at work with a positive outlook.

"I feel better every day," Atkins said. "The clinic we have here at the plant is the best thing the company has ever done."

The employee health clinic at Glen Raven's Burnsville Plant is one element in an overall corporate strategy to protect and boost the health of all associates. The clinics provide routine medical care services and also serve as the center for Glen Raven's new PATH program – Pro-Active Together for Health.

"It's not that easy for many people to take a day from work to see the doctor, so they put off going," Trcka said. "With our clinic located inside the plant, associates can be seen right away. I can do blood tests and we have a nurse practitioner here once a week."

Sandy Silvers, a 10-year Glen Raven associate, had not been herself for two years, ever since the death of her father. She was fatigued a great deal of the time and after work she ended up at home on the sofa too tired to do anything.

Silvers visited the Glen Raven clinic for a routine blood test which indicated iron deficiency and anemia. Trcka arranged for her to be seen by a specialist who diagnosed Celiac Disease, a relatively rare intolerance for gluten, a common element in many foods.

"I had to change my diet drastically – no cakes, pie, cookies, bread – almost anything with wheat," she said. "And it worked. I feel great now. The clinic here is a great benefit. Sharon has access to on-line health information and she really helped me understand what was wrong with me and what I could do about it."

Glen Raven's health clinics are increasingly serving as a first line of preventive healthcare. From routine screenings in the clinic, Trcka has identified associates who have or who are at risk for diabetes and high blood pressure.



“I don’t want to overstate things, but I know our work here has enhanced many lives and in some cases saved lives,” she said.

Sandy Hilemon, a 30-year Burnsville associate, thought she was having a heart attack at work the first day that acid reflux struck her. A trip to the in-plant clinic led to a resolution of the problem and medications to control it.

“I just don’t have the time to go to the doctor that much,” she said. “The clinic is free and is so easy to get to.”

One of the most important ongoing activities of Glen Raven’s health clinics is a Health Risk Assessment (HRA). Associates complete a detailed questionnaire and undergo basic blood work. The goal is to identify health risks that can be addressed through lifestyle adjustments or medications.

“The HRA questionnaire and health screenings have been a successful program for Glen Raven, leading many employees to lose weight, stop smoking and make adjustments in their diets,” said Janice Burgess, recently named wellness manager for Glen Raven. “With the rising cost of healthcare, it is essential that our associates do a better job of managing their health.”

Glen Raven provides encouragement and financial incentives for employees who agree to pursue healthier lifestyles. Encouragement comes in the form of the HRAs, screenings with detailed results and the services of occupational health nurses such as Trcka and the Nurse Practitioners in the on-site clinics. Financial incentives are included in a new health plan taking effect in 2009 which offers significant reductions in healthcare contributions for employees who complete the HRA and screenings and agree to follow a personal plan of recommended care.

According to health studies, up to 90 percent of all medical problems are lifestyle related and can be prevented through adjustments to diets and regular exercise.

“Glen Raven is investing in the wellness of our associates for many reasons,” Burgess said. “We are concerned about the cost of our healthcare benefits and believe that this program will help to reduce our costs, which affects the economic health of Glen Raven.

“Just as important, however, we know that a healthier workforce is more productive and quality focused, which translates into benefits for Glen Raven’s customers,” she said. “Finally, it is just the right thing to do. Our core values include respect for our associates and you cannot show any greater respect than helping someone get and stay healthy.”



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