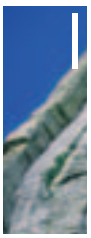
In the Spring 2001 issue of World Sports Activewear, the problem of global sourcing was examined. In this 'personal view' article one famous brand explains how it copes with quality control in worldwide sourcing to ensure that its products, no matter where they are made, meet with the standards the brand has set itself.

Conquering the mountain



In the outdoor clothing trade, Berghaus is considered a market leader and is renowned for product quality and performance. Ask consumers why they buy Berghaus and they will reply that they know that they are getting a product that will perform to their expectations in every way, in terms of personal protection against the climate during end use on the hills, to appearance, longevity and ultimately value for money. How many people do you know that have had their Gore-Tex jacket for over ten years and still continue to use it like it was new? I do, I've got one myself that is ancient but is still going strong after many years. The brand heritage is built on the assurance that it will consistently provide outdoor product that is of the highest manufacturing standards and provides the innovation and technology to meet the challenges of outdoor activities at all levels.

Traditionally a UK manufacturer, Berghaus has responded to the changes in the trading climate and moved towards transglobal sourcing of all products. Multiple sources across the globe have been utilised through the requirement to achieve the best sourcing strategy all the different products manufactured, from fully taped outer shell jackets to fleece and under layers. As a result, its supply chain covers the Far East, Middle East and eastern and western Europe. This move, although necessary, has not been taken lightly. Product quality maintenance is difficult enough when the factory floor is beside the office, but when the complications of thousands of miles and a language barrier are added in, things become a little more complex.

The key to successful international sourcing and design of a premium quality product is the detail and preparation before a single unit is ever made. From the initial outset the crucial factors are the relationships between the brand, the agent, the supplier and the supplier's suppliers. Straightforward really, just use the methods used in the factory, demand on time delivery, pay premium prices for components, and inspect the goods in intense detail before they are shipped. Or is there an alternative approach?

A noteworthy detail is remembering that your supplier will often operate under a different culture with different expectations and priorities from yours. Often the overriding connection is the desire to make money, but here is another catch, is your brand's desire greater than that of your suppliers? Relationships are a necessity when sourcing off shore. If you don't trust your vendors, how can you ever believe that you will attain quality goods? This also applies in reverse for if the vendor doesn't trust you, then why should they exert any great effort to ensure your products are first-class.

I have often found that vendors have a habit of taking everything written down or communicated by the buyer as the gospel truth. If you are not clear in your own requirements, don't expect the vendor to think for you. Relationships require trust between all parties involved, but the very nature of Quality Control (QC) and testing implies that the trust is not fully there. This is true to a certain extent but the QC process imparts a discipline that provides a basis to develop trust in a business relationship. A true partnership provides two way communication and discussion in the resolution of problems that arise.



Spectrum Fleece

This does indicate, however, that problems do actually surface in the real world.

Off shore sourcing has proved to be a very steep learning curve for Berghaus. Moving all products overseas has thrown up new procedural requirements and the necessity to become more creative in the solutions needed.

Production quality control is one of the major areas that initially comes to mind. How can you guarantee that your vendors are producing your performance garments to the standards required? Are they carrying out every procedure correctly or are they taking shortcuts to increase output and reduce costs? Do they apply the same stringent seam sealing test methods? Does the product actually comply with the specification requirements?

The worst case scenario is that a Gore-Tex jacket has badly taped seams, pinholes and is the wrong colour, but you might only find this out when it arrives in the warehouse in the UK or even worse at the retailer. What comeback do you have?

Sub standard materials can result in performance failure and returned goods, and become detrimental to the brand name. A cheaper alternative may have seemed like a good idea to a supplier at the time but will it last. In the same way, substituted components may be great in principle but what happens when the eyelet or stud fails during light end-use? It is your brand name that is tarnished - not the vendor's.

Closing the gate after the horse has bolted has a familiar ring to it once you receive a delivery of goods that is faulty on receipt. Depending on the original method of financial arrangements and country of origin, returning faulty goods can be a major headache, often resulting in lengthy disputes and the eventual costly disposal of sub standard goods within the market.

Quality vs. On Time delivery is a discussion point that is linked to the market conditions. Transglobal sourcing is key in today's textile market but, more often than not, long lead-times increase the pressure applied to the extent of quality control methods employed. Late deliveries can often result in cancellations but on time faulty deliveries in reality only postpone the pain.

Multiple sourcing of single products provides an additional challenge to the quality manager of a brand. How do you ensure that multiple sources will all produce the same design to the same level of quality, consistency of manufacturing methods, sources of trims and components, stringency of individual in-line process control and so on. As pricing constraints push for ever-improving product costs, critical product will be transferred around the globe to achieve improved results. If the product is not controlled stringently, stock variations can occur, often resulting in poor merchandise that can weaken a previously strong market share. Quick response re-sourcing can alleviate the short-term issue of price but does not account for the next move of the product if the initial vendor chosen cannot meet the next season's targets.

So what are the solutions to these issues? Well, fabric and component testing is important to all brands, but to Berghaus it is critical. The product is known and expected to be of the highest standard and it must perform under the conditions of the chosen end-use. It is such a vital part of our development and production process that we have an in-house laboratory that can provide results on a wide variety of test methods, from abrasion, to water vapour transmission, to colourfastness. But we do not only rely on our own process.

We utilise the fabric vendor's resources through their specifications and test results and when required through their own testing facilities. The key is the specification of a fabric or trim component. If it is not clearly stated what it is and what it will do, how can we hold a vendor accountable and guarantee that the Berghaus product will not fail before, during or after production. Clear fabric guidelines are essential for all product types. Within each of these categories there are several levels of performance requirements depending on the end use of the product. For instance, a pair of cotton trousers for general everyday wear will be required to perform to a specific level in terms of pilling, abrasion resistance, seam slippage, colourfastness and so on, but a pair of trousers made for the adventurous trekker who wishes to travel the globe through several differing climates will require more. The fabric will need to be lightweight but substantial enough to withstand rough terrain, cool in hot climates but warm in colder ones. Coated and laminated fabrics are created with various end uses in mind. The fabric processing routes are more complex and bring with them the capacity for more failings.



Storm II I.A. Jacket and Wolf Trousers

Global sourcing brings to light that there is a world outside British Standards and their test methods. It is highly recommended that you confirm exactly what test method is being used before the comparison of results are started. Often the confusion arises from available testing equipment and the understanding of how ATTC, BS, ISO and DIN standards all vary. Oh yes, and don't forget about Marks & Spencer, the retail giant whose testing standards and procedures are widely used and often quoted regardless of their relevance to your product. Agreement of the methods and standard requirements for the brand up front avoids confusion and can guarantee easier communication between parties.

Berghaus brings another factor into the testing method conundrum, as we have several well established in-house methods for our technical product that are not readily replicated due to the availability of the special equipment we have.

In some instances we have developed critical measurements for laminated and coated fabrics, which replicate wear and provide fundamental interpretations of the fabric performance. The use of comparative principles and the definition of correlation between test results can overcome this.

Independent testing is proving to be a necessity with the ever-increasing need to reduce product lead-times from off shore. Although courier services are very reliable these days, why send a sample half the way across the world to see it if it is acceptable to your testing, when, in the time it takes to get to the UK, you can have the completed results communicated to you. Cost is a significant driver here as well, but, although independent testing is expensive, it can be offset against the cost of dispatch and the time delay effects on production scheduling.

In parallel to the principles of setting standards for testing, the company operates a stringent specification and sealing process in order to define the product requirements and eliminate potential issues before the fabric is ever cut in the factories. This is fundamental to the success of any quality control procedure put into place. If the vendor clearly understands the components and the construction methods required to produce the garment then you are well on the way to a quality product.

But unfortunately clear understanding takes time and effort. The first principle to understand is that the specifications written in English are often not the native language of the country in which the production will take place. This often results in translations and key points may be misinterpreted. Berghaus has overcome this issue by listening to our vendors and making use of the technology available today. They say that a picture is worth a thousand words, well so are mock up samples and sketches. Digital photography technology combined with simplified key points can eliminate errors and help cross the language barrier much quicker than an A4 page of terminology. Ask any garment technologist and he or she will tell you the best way to explain a construction method is to show someone; photographs are the next best thing when you are sitting in an office in Sunderland and your vendor is in Hong Kong or Jakarta.

The Product Sealing Process becomes even more critical when the goods are being produced around the globe. From the initial interpretation of the design through to the pre-production sealing sample, it is a key process. Often your vendors will refer to a sample product before they look at the specification. Sealed samples provide you with a level of confidence in the supplier's ability to produce the product to the required standards of manufacture. Although this can become an extremely expensive and time consuming exercise, it does provide a guarantee.

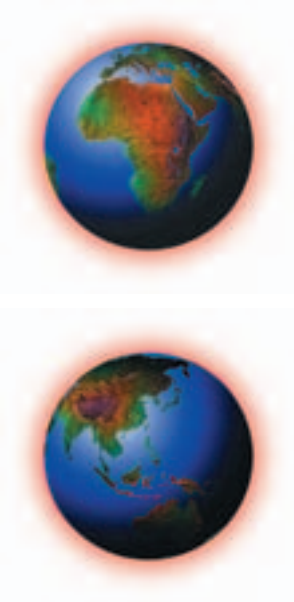
The brand's agents are essential in assuring the product quality is consistent throughout the production period. Unless you have key technical personnel located in the country of manufacture, the brand has to rely on the skills and capability of the agent's technical/QC personnel. Clear-cut really, providing your agent has a clear understanding of your requirements and standards. They must be accountable for the product, understand the technical performance standards and be thorough in their methodology to audit product quality. Their quality procedures must be in-line with the brand's requirements and provide data that will allow quick actions should the need occur. They must above all be allowed to think and act for themselves - why use them if every decision must be referred back to the UK for an answer. Product training is essential as is regular communication and it is essential that the brand also provides a level of technical support, not only from the UK office, but also in the field. Regular visits during the manufacturing period show a presence in the supply base and build the relationships with the vendors and agents. Visits also provide the opportunity to develop and train the quality control staff of both the vendors and your agents.

Whatever method of statistical quality control analysis that is applied, it should be consistent, from the vendor, the agent and the receiving UK warehouse. The most common approach used in the industry today is the application of the Acceptable Quality Limit (AQL). This is the most widely understood method of random sampling that generates data that can be used to assess a vendor's performance over a period of time.

One should not neglect the secondary supply base in terms of product quality. With brands such as Berghaus being heavily dependent on the performance of their chosen fabrics, it would be rash to ignore the potential for quality levels to slip in this area. Linked to the defined performance standards for fabric testing, which are determined in the very initial stages of a product life cycle, the quality control requirements for fabric are necessary to ensure that these standards are maintained throughout the production process. Berghaus has several well-established fabrics, which can run over several seasons, but must always provide the same end result in terms of appearance and performance. Colour continuity is determined from the approval of the laboratory dip and subsequently through sampling from the sample and production fabric batches. Random batch testing is also applied to ensure that the fabric is the same at the end of a production run as it was during the sampling phase.

The better you get at this, the more complex the issues become. Maintaining product quality off shore is a continual learning cycle. Every new problem encountered provides areas for improvement. Complacency with regard to quality and testing can only result in a costly and detrimental conclusion. Berghaus has implemented fundamental changes within the organisation in order to meet the necessary requirements in fulfilling the consumer's expectations. This will be continued in order to enhance our processes in the months and years to come, as I am confident that we have only just begun the ascent, in terms of transglobal sourcing and quality management.

Katrina Fowler, QA Manager for Berghaus, part of the Pentland Group



'Global sourcing brings to light that there is a world outside British Standards...'