

The significance of accreditation in the supply chain

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It is now a widely accepted fact that the main manufacturing base for footwear and many other leather products is South East Asia. It is probable that in 2005 three out of every four pairs of shoes produced originated in this part of the world and the figure is also similar for other leather products. This situation is the culmination of a gradual shift from high cost countries to those offering a low labour cost base. As the industry and its infrastructure has moved, organisations that provide services to shoemakers have also had to adapt to this new reality.

SATRA began to develop a widespread, international membership base in the 1960s and its consultants have now been visiting overseas members to provide training and productivity assignments for 45 years. When the major brands and retailers increasingly began to source their products from low labour cost countries, many turned to the technology centre's international experience for support. Over the years, SATRA has remained committed to its membership philosophy in the strong belief that this means continuously investing in new products and services to reflect its members' changing needs.

SATRA and the modern supply chain

The major footwear supply chains run from East to West. In 2004, over \$13 billion worth of footwear was sourced from South East Asia and distributed in the USA and EU. Much of this output was controlled by major brands which design and engineer the product, set the price and delivery schedule, and also specify the quality and performance level. In both the US and European markets, the distributor (i.e. the brand on the final product) has a legal responsibility to ensure that the product provides value for money, will not constitute any danger to the wearer, and will offer a reasonable level of performance.

SATRA is able to provide assistance from the design and development phases, through product engineering and manufacturing, to final distribution. It has developed a range of services, many in the form of accreditation modules, that members can utilise and which offer a comprehensive level of quality assurance across the global supply chain.

Product specification is a critical source of information when



SATRA
approved
product award
certificate

it comes to monitoring and controlling quality and efficiency throughout the supply chain. Information on the required specification must be unambiguous and understandable, using internationally recognised terminology and standards wherever possible. SATRA has what is probably the most comprehensive performance-based database of information with regards to test methods and standards anywhere in the world and can evaluate product specifications at the development stage.

Implementing a quality assurance regime to monitor and ensure compliance with the required standard is essential as the supply chain may stretch across many thousands of kilometres and a number of time zones. It may also involve different languages, all of which can be the cause of misunderstandings and confusion. The technology centre's approach is to identify the key steps in this supply chain and ensure that the required level of quality assurance exists at each and every one.

A good fit

At the early stages of product development, the selection of the correct last, to ensure the widest possible correlation with the intended market, is essential. The last is the foundation for a correct fit on the foot and SATRA has considerable experience in all aspects of fitting, and information about the variation ►



Shoe being fitted by SATRA expert

in foot shape and size in different parts of the world.

As the product development process is undertaken, SATRA advises on constructional details to confirm that the level of fit and comfort will be adequate. It can train fitting technicians and also provide advice on the procedures to be followed to select an appropriate panel of wearers; which equipment and techniques to use; and how to maintain a relevant database of information.

Companies and individuals meeting these requirements can achieve certification under SATRA's fitting technologist award scheme to provide assurance to customers that fitting was considered and managed correctly very early in the overall life of the product.

Leather grading

The sourcing of primary materials, such as leather, has always been an area that can lead to disputes about quality and usability. Essentially, the buying and selling of leather requires the tannery to have comprehensive details of the customer's requirements for the product quality, the level of manufacturing ability and which products are planned into the production schedule.

Once again, SATRA's approach is to simplify this to a single agreed product to be used for the grading process. The customer sets the standard of product quality, and SATRA training consultants ensure that the quality control personnel, at both the leather supplier and the manufacturing plants, have a full understanding of this, together with a proven competence

to grade skins, using a systematic method to this standard.

By providing structured training and carrying out regular audit visits, during which the consistency and skill of the individual graders is checked, accreditation can again be obtained in the form of a leather grading award to demonstrate that a company has competent assessors, and established quality standards and systems to ensure the consistent supply of appropriately graded leather.

Cutting and stitching

A similar approach to that of leather grading is used for some of the key manufacturing processes. An award for cutting and stitching competence can be achieved following an audit to observe and monitor the individual aspects of competence against an agreed checklist. The audit will cover not only operational details of the production process but also management information and support systems. It will also deal with environmental aspects such as lighting, space, the type and the degree of maintenance of the equipment used, as well as the inspection activities the company specifies to ensure that the product meets the customer's requirements.

Sole bonding

Sole bonding is one of the main causes of consumer complaints and is therefore an operation that needs careful management. SATRA can ensure that the operatives have a complete understanding of the operational requirements, that they are trained to carry these out, have suitable equipment and can display consistent competence. When supported by relevant maintenance and process control procedures, this can lead to a sole bonding accreditation award.

Accredited laboratory

Underlying the entire supply chain is the need for a consistent



Leather assessment

SATRA accredited laboratory

and relevant quality assurance and control programme. The heartbeat of any programme is the use of a dedicated laboratory. SATRA is a world leader in preparing and providing the essential features required for a laboratory operating in the leather, footwear and leathergoods sectors.

There are currently over 80 laboratories throughout the world, with almost 750 individual technicians that it has accredited. Each has a defined scope of testing, reflecting the needs of particular products and customers. By developing this network of expertise close to the manufacturing or supplier base, it is believed that many of the day-to-day, core-testing issues can be managed efficiently and cost effectively.

The use of internationally recognised quality assurance systems such as ISO 9001 can provide the customer with a further degree of confidence in the overall consistency and reliability of the supplier's processes. As a UKAS accredited certification body, SATRA can certify organisations within the supply chain to ISO 9001: 2000.

Approved product

For companies operating ISO 9000 level quality management systems additional recognition for specific product attributes can be offered. For example, if a particular type of footwear is water-resistant or a specific leather can withstand a high level of abrasion, these could qualify for an approved product award. This defines the specific attribute of the product, supported by extensive SATRA testing and an audit of the company's ability to consistently produce the product to the required standard. To achieve this, the company must be able to demonstrate the use of a recognisable quality management system allied to product testing.

Auditing

The initial work that is carried out to ensure the company has the knowledge, skill and capability to meet the standard will form the basis of subsequent audit visits when their continuing adherence to this level is confirmed. For example, in the case of leather grading, cutting and stitching awards, detailed working methods and physical conditions (such as space, storage and lighting levels) are examined and compared with information generated during the previous visit.

In all cases, company personnel will be expected to show credible and consistent written evidence of their work and most importantly how they managed situations when problems occurred. In a complex process such as footwear manufacturing, there will inevitably be problems with deliveries, materials and processes. SATRA's approach is to ensure that there are procedures, understanding and



information, together with a reporting structure, that can identify and correct any problems.

In the case of the fitting award, records of fitting tests carried out are examined together with feedback from the panel of selected personnel, along with the action that was taken when footwear was found to be unsatisfactory. There should be an audit trail to show how product engineering resulted in footwear which was then acknowledged to fit correctly.

The sole bond award covers a specific and vital operation. The audit process will examine all the regular process checking and, where the bond was found to be below standard, how the affected products were traced and corrected. There should also be evidence of corrective action, and further training or machinery improvements to eliminate any re-occurrence.

The work carried out in the laboratory will provide a significant amount of information for SATRA auditors. The test methods used, their application, the regular calibration of testing machinery, and the results obtained should all be clearly documented and available for inspection. The auditor also looks for competence and continuity from the personnel involved. When key people move on and are replaced there could be some disruption unless this is carefully managed and the audit process will examine the relevance of the results obtained and what management action was taken to ensure that a high level of expertise was maintained.

The total package

Whilst each individual award publicly acknowledges competence for a specific step in the supply chain, it is not sufficient on its own. Taken together as a total package, awards provide assurance to the customer that all of the key steps are well managed. Because all of the aspects involved are regularly audited and annually re-accredited, they can be maintained to this standard. This is why a number of major brands have specified SATRA's accreditation service as mandatory throughout the supply chain. It provides them with cost effective quality assurance for key aspects of the design, development, manufacture and delivery of their product. 