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‘WHYWASTEIT’

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Why waste it, indeed! Upper materials form a significant proportion of the cost of a finished shoe, so minimising cutting waste is critical to remaining competitive. Listed here are eleven key factors that need to be properly controlled to ensure a high standard of materials management.

SPECIFICATION AND SELECTION

Understand the quality requirements of the customer and translate these into measurable standards that can be used to purchase materials. Leather assessment is a major aspect of this, ensuring that skins are of adequate usability and size.

QUALITY STANDARDS

Leather is a natural material so its properties vary within and between each skin. Understanding how to use these variations without compromising the finished product is the art of shoemaking. Examining and identifying problem areas beforehand minimises the risk of finished shoes showing unacceptable surface defects and performing badly in wear.

PRODUCT DESIGN

The size and shape of upper patterns significantly affects cutting allowances. Cutting small items such as tongues and back straps from the same leather as the main components reduces waste.

PRODUCTION PLANNING

Production batches should be planned to include a range of sizes—ideally largest and smallest together. This allows the cutter to interlock cutting dies for optimum efficiency. Planning should also try to match skin size with shoe size so that the largest dies can be used on the largest skins.

OPERATIVE SELECTION

Cutting is a skilled task and operative selection is critical. Around one third of people have the appropriate blend of natural abilities to cut efficiently. Ideally, cutters should have a highly developed sense of spatial awareness, good manipulation ability and be able to match slight variations in shade and colour.

STORING MATERIALS

In order to allow planning personnel to issue the most appropriate mix of materials, they should be stored in appropriate conditions and clearly marked. Ideally, each grade of leather should be stored separately to allow them to be mixed at the time of issuing. Returned materials should be stored ready for reuse as soon as possible.

PHYSICAL ENVIRONMENT

The production area where cutting takes place should be well lit to simulate daylight and assist cutters to recognise shade variation in the materials. There should also be adequate storage for materials to be cut, together with easy access to cutting dies which should also be clearly labelled to avoid confusion.

CUTTING EQUIPMENT

Worn, badly maintained or inappropriate equipment reduces cutting efficiency. Cutting presses should have adjustable pressure settings to allow for different types and thicknesses of material, and require the use of both hands to operate them safely. Cutting boards should be turned at least daily, regularly examined for uneven wear and planed or replaced when necessary.

TRAINING AND SKILL LEVEL

A well thought out training schedule helps develop cutting skills to a high level. It should be progressive and build on each previous learning step while allowing trainees to work at their own natural pace of development. The required level of quality must be the guiding aspect from the outset.

INSPECTION OF CUT PIECES

Where inspection of cut components is carried out by non-cutting personnel, they will need to refer to a checklist of faults or a reference upper. They will also need adequate lighting to ensure minor faults or shade variations can be identified. It is not always necessary to examine every piece and inspection should be concentrated on difficult materials or styles.

MOTIVATION

The most effective form of operator motivation is one which results in the achieving or raising of the required standard of productivity. Some form of enhanced payment has traditionally been used but, whatever incentive is employed, it should reward cutters who produce the correct number of components, in the correct time and of the correct quality.

Ongoing research work by SATRA has established that companies managing these factors correctly achieve and sustain a higher level of cutting efficiency. Savings of up to 12% on material costs can be made by companies using SATRASumm to manage the cutting of leather and synthetic materials. It is worth paying a visit to www.whywasteit.org because unnecessary waste is a cost the industry can ill-afford. 