Product Specifications — Its Use and Importance

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PRODUCT INDUCTION

How should a newly developed product look? This simple question has an equally simple answer. Exactly like the sample approved and submitted as a benchmark. All activities to achieve this requirement are simple, until such time the product starts differing and does not look as desired. For instance, colour of the product might be a little darker, the label a shade lighter, packaging stuck wrongly or the product size / shape not as desired. The chance that the manufacturer's product differs to that of the sample approved by the buyer is usually quite high. Some product requirements might be important and some irrelevant to its performance. Whatever the outcome, the product should look like the sample approved. Old excuses like "it is quite close enough" or "it is within industry standards", or "it is within consumer needs", etc., does not hold water during discussions. Only a compromise thrashed out between the two — the supplier and the buyer — can resolve this issue. Should the same quality issue again crop up, we can expect the same discussion, similar compromise, and a likewise decision. Imagine if these situations keep occurring intermittently. We can then expect only distrust and disagreement developing between the involved parties. It need not necessarily be the same problem; it could be some other quality issue instead and we have the same scenario all over again.

WHAT ARE SPECIFICATIONS?

To keep the production running smoothly, without any quality disputes, we have to ensure that the product made is right every time. This is possible only if all involved in producing the product clearly understand the requirements correctly. Specifications are documents that describe and communicate the requirements to all parties involved in the manufacture. Specifications provide a common understanding and provide a means to ensure that all stakeholders have the same description of what is right and what is wrong.

Products manufactured cannot be made exactly in the same manner at all times, and this forms the basis for drafting a specification. Specifications describe the ideal parameter that can be measured in the item being manufactured. Raw material, speciality ingredients and additives, fragrances, packaging, shipping containers, label markings, size and shape, mode of delivery, and all other possible components, including payment terms, should have specifications written and documented. Specifications for all items should cover the important aspects of the component that are critical so that they become the basis for acceptance or rejection. For example, suppose viscosity of a shampoo is specified. If the shampoo is too thick or too thin, and not as specified, it is highly unlikely that the end-consumer will accept the product when offered. Similarly, if the soap carton made is smaller than the size of the soap bar to be packed, it will not fit. Detergent powders should maintain its free flowing, light, fluffy character in the packaging and not become lumpy or sticky etc.

WHY SPECIFICATIONS ARE REQUIRED?

Specifications are intended to protect the interests of both the supplier and the client. It provides a common ground for resolving problems that can occur during manufacture. *A product that confirms to the set specification generally means a job well done.* We are aware that all manufactured products in a production line are not exactly similar. Specifications demanding values or parameters that are exact and unique are not right. It is more appropriate if a reasonable range of specified values be permitted for quality acceptance. Typically, say TFM 76% minimum, moisture 12% maximum, viscosity between 2000-2500 centipoises, pH 6.5-7.2, cap size ranging between 1.00 inch to 1.01 inch, etc.

All ranges specified for each parameter should be a reasonable compromise between two extreme opinions. This is necessary because buyers want the ranges to be as close as possible, so that the difference in the product manufactured is not easily discernible. On the other hand, the manufacturer wants the specifications to be as wide as possible so that manufacturing becomes easy and trouble-free. In any case, ranges can neither be too rigid, giving rise to massive losses due to a large number of rejections, nor too slack, leading the production of inferior quality products. In order to keep a cordial business relationship it is necessary that an effective balance is maintained between the supplier and the buyer during the setting and finalisation of the specifications ranges.

DRAWING SPECIFICATIONS

Parameters that are critical to the product should only be specified. Specifications with parameters that do no justice to pro-duct performance when added only cause trouble, confuse matters and increase work load. Production and quality control personnel waste valuable time and resources in tracking, inspecting and analysing unnecessary details, with the possibility that important parametric aspects might get overlooked. Specifications,

when drawn, should consider and specify only important parameters, taking adequate note of what the manufacturing process is capable of delivering; otherwise it is most likely to become superfluous and without merit. To make good specifications one should take recourse to data of past production and the ranges that have occurred during manufacture. For example, supposing a body lotion splits and separates into its different phases at a pH less than 5.8, then the specification range should be set above this value. If no such separation issue ever occurs, then it is better to keep the range within parameters considered safe from past experience with similar product categories.

Sometimes production data is not available. In such cases, laboratory testing results and professional advice from experts, could be referred. Bureau of Indian Standards (BIS) have drawn specifications for various products in consultation with industries, research laboratories and government bodies and may be relied upon. Generally, manufacturers have expertise and experience at their disposal. Specifications ranges can be drawn taking this into account, so that customer needs are not only met, but also manufacturers have sensible tolerances to carter to. Only such joint decisions will resolve any mistrust between the supplier and the client and lead to a healthy working relationship.

SPECIFICATIONS ARE DYNAMIC

Specification documentations should be subject to review periodically, to allow for improvements on the basis of additional experience gained as production continues. Sometimes to get rid of typical problems that can arise, it becomes necessary to slightly adjust the specification ranges to ensure smooth trouble-free production runs. Specifications should remain a useful tool and not become a bureaucratic burden. Specifications are necessary for our benefit and this perspective should not be lost. Specification ranges should neither be too strict nor too lax, but as balanced as possible. Product specifications set should communicate all requirements of important parameters of the product and its components and share a common understanding between the manufacturer and the buyer. The communication should be clear, concise and measurable in all respects so that any discussion and arguments in case of disputes is objectively measured.

CONCLUDING DISPUTES

In case of disputes, specifications can provide the frame work for decision making and help in searching for an amicable solution to any quality problems. Well documented specifications may not guarantee complete elimination of quality issues or disagreement for acceptance or rejection, but it does ensure that they are reduced to the minimum to bring the situation back on track affably and without delay.