

Quality Partnerships

Erika Oudin at Sofrigam introduces project specifications, the partnership link between supplier and customer, and a guarantee of quality in cold chain operations

Often ignored in relations between the supplier and customer, specifications are the foundation for the entire project: they can be used to identify expectations and help the supplier provide customer satisfaction. The document therefore acts as a reference throughout the project and ensures that the desired objective is achieved.

The purpose of this article is to demonstrate the advantages of using a clear set of specifications established by the customer who is looking for an insulated or refrigerated box. The consequences of not having a complete set of specifications will first be described, followed by a practical guide to the minimum information required.

THE ADVANTAGES OF SPECIFICATIONS

‘If it had this feature, I would have bought it straight away. But as it is, I’m not sure...’ Most of us have probably felt this way at some point when considering whether to buy a new piece of equipment. It does not necessarily cast doubt on the item itself, but the lack of that little something extra makes us hesitate about whether to buy or not. In the case of consumer goods, research is conducted into what is expected of a target product, a set of specifications is then drawn up, setting out the features the new product has to have. This will make it possible to reach the widest possible public target.

The situation changes slightly when it comes to developing a product specifically for a customer. The latter must first stipulate what is required before design work can begin on the product itself, which is not available as a ‘standard’ item. Quite often the requirements are obvious, but unfortunately, they may be badly defined. The existence of a clear and precise set of specifications established by the customer has two main advantages:

- It demonstrates that the requirements have been defined and clarified internally before contacting the supplier. In general, the involvement of different departments (purchasing, logistics, quality, and so on) is highly

recommended, so that the requirements of each one are known and discussed in the event of non-compatibility

- It gives direction to the supplier. Since the requirements have been considered in advance, delays and questions can be avoided

Let us take the example of insulated and refrigerated boxes. These products are sometimes a new concept to customers. In this case, drawing up a set of specifications can be an opportunity to collaborate with the supplier, thereby initiating a partnership.

Using their experience, the supplier is able to help in setting out the customer’s requirements and can be on the lookout for any specified features that cannot be achieved, either because they are not technically feasible, or because some criteria are not compatible (compliance with quality, cost and deadline, for example).

The length of time required may vary, depending on the reactivity of each party, but it is needed to settle on the definitive set of specifications and begin developing the final product.

A poor set of specifications will result in the development of a product that does not entirely meet expectations. Even worse, it may lead to a failure to meet the initial deadline

and provisional cost if the requirements are changed during product development.

POORLY DEFINED SPECIFICATIONS

The supplier, as an expert in the field, is the best person to know whether the expected specific criteria are achievable.

The most common causes of problems are:

- Technical incompatibility: the desired characteristics lead to a product that cannot be developed as expected
- Inconsistency between various criteria: the wish to have a multi-functional product that is highly effective even under extreme conditions and inexpensive at the same time, or an innovative product that will be available in a very short time.

In both cases, there must be an agreement between the supplier and the customer on which criteria are not up for discussion. This puts the supplier on the right track with regards to product development, and will ensure that they fully understand the

Figure 1: Impact of the maintenance of quality on cost and deadlines



client's requirements. It often happens that alternative solutions are found that can meet as many criteria as possible, referring to quality, cost and deadlines.

In fact, these three concepts are closely linked: changing the details for one of the criteria implies changing direction on the other two as well. It is quite common for the customer to increase 'quality' requirements, while asking for a reduction in the 'cost' and 'deadline' criteria (see Figure 1, page 38).

Even if new designs come from existing products, a development period will still be required in order to adapt them. Tests have to be carried out to check that the solution is reliable, which costs money and involves an additional delay. If a qualification is required before actual use, this same criteria may quickly be increased.

MINIMUM SPECIFICATIONS WHEN DEVELOPING A REFRIGERATED BOX

In order to assist both regular and occasional customers of an insulated or refrigerated box, here is a list of the minimum information to be supplied in order to produce the best solution from a performance point of view:

- Temperature range of the products to be transported
- Unit dimensions and number of products to be placed inside the box

About the author



Having graduated from the Ecole des Mines in France in 2004, Erika Oudin began her career in the food

industry sector. Having specialised in research and development, she decided to change direction and joined the design office of Sofrigam in 2006. Her general training formation, primarily in process engineering, enabled her to settle in rapidly and take charge of packaging development and qualification in response to the specific needs of the pharmaceutical and food industry.
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- Period of use and temperature profile(s) to which the box will be subjected.

For the latter criterion, examples already exist in various guides (ISTA, C3, and so on) or standards (Afnor NF S 99-700). However, validation of the actual box in question is recommended, as the examples do not reflect the logistical chain of the customers.

This is the minimum information required, but it is not sufficient to guarantee that the optimum solution will be produced for a given customer. In fact, it is possible to develop several types of box that meet all three criteria. The most suitable will be the one that best meets the requirements of the following departments:

- Quality – the need for a solution that is effective under all circumstances
- Order preparation – the need for a box that is ergonomic and easy for employees to prepare
- Logistics – the need for a box which is characterised by an optimum weight and volume
- Purchasing – the need for an inexpensive box in order to meet a given budget

This list is, of course, not exhaustive.

If the specifications are not clearly defined, the supplier can often find themselves having to make a decision: which criteria have to be respected first? His choices no longer reflect the requirements that have been expressed by the customer. Thus, there is a risk of offering a non-compliant solution, which, consequently, can lead to misunderstanding between the customer and supplier.

Let us take an example: it is common to ask for a single set-up refrigerated box able to offer efficiency all year round. This makes it possible to solve the problem of changing the box preparation according to the season. Such a criterion usually comes from the quality or validation department. However, this option is always more cumbersome to implement from the point of view of the order preparation or logistics departments. It requires careful organisation and involves estimating the set-up costs at an early stage: space required for chilling

and freezing equipment, for storing packages, forecasting peak times to ensure continuity of order preparation, and so on. In addition, sending out larger packages will involve added cost that needs to be assessed at the start of the project.

A single set-up option is also more expensive from a purchasing point of view, as it involves many more inner elements than a multi set-up option. The purchasing department has to keep to a budget. Therefore, in order to satisfy a given criterion, it is possible that less importance is given to another one. But which one should be preferred and why? The customer is responsible for prioritising.

This is where the initial request, formulated and validated in the form of specification, can be used to re-establish a dialogue between the two parties and check that the original objective is being met.

CONCLUSION

The specifications are specific to each individual customer as they reflect their own requirements. They arise from the preparation of a specific strategy unique to each customer. When drawn up in advance with the various departments involved (quality, logistics, purchasing, and so on), they have the advantage of taking account and prioritising the needs of all parties. Such a key document can then be used to assist the supplier in developing the solution that is the most suitable.

The supplier, with their experience in the field, can provide support and assistance with drawing up the specifications if required. Preliminary discussions on this subject can be used to forge a partnership and ascertain the needs of both sides in order to create a climate of confidence between the parties.

A period of discussion, of varying length, both internally and with the supplier, is therefore necessary in order to produce a good set of specifications. Focusing on this before the project begins will save a lot of time in the end, as the unifying theme will have been established, leading to the desired end product.