

Equipment Selection for FMCG Facilities



Let us help you realise your vision.

A critical step in the equipment selection process is understanding the client's aims as well as current and future needs. Clients will often have a strong vision of what they want but do not necessarily know how to achieve this. Astratek Manufacturing Engineers has a wealth of knowledge and experience in equipment selection and - procurement to assist and guide clients through this process.

Making sense of the vast array of offerings can be challenging. The selection is hugely varied in terms of cost, quality, and suitability. There are also several after sales considerations that should not be forgotten such as availability of spares and technical support. The first step is to compile a technical specification based on the clients needs. Once potential suppliers have been identified, we can narrow the selection by asking the right questions, some of which may not be obvious. These may relate to cost, quality or various other factors depending on the client's priorities. Our experience allows us to give the client insight into

best suited to their needs after performing a comprehensive comparison of the offers prepared by potential suppliers.

In order to size equipment optimally, it is vital to understand the process, both upstream and downstream of the point of interest as well as the overall operating conditions. This includes any space constraints, an assessment of current utilities and an understanding of the existing support structures. Any other client requirements must also be factored in. A thorough understanding of the production pattern is needed to factor in shift structures, maintenance, changeovers etc. The significance of changeovers, for example, is often overlooked resulting in new equipment being undersized or otherwise ill-suited to the application. An accurate OEE (overall Operating Efficiency) can have a dramatic impact on equipment sizing and hence is it essential to calculate and apply these factors correctly.

The food and beverage industry has stringent hygiene requirements that must be adhered to in all aspects of the process. Astratek Manufacturing Engineers is one of a very small number of South African companies that is EHEDG certified (European Hygienic Engineering & Design Group). This guide, along with the various other food safety and hygiene standards, informs the quality- and design requirements we incorporate in all technical specifications issued to suppliers. These requirements may relate to the build quality of the equipment, the functional performance or the elements that must be included – for instance, scanners in packing lines to detect foreign object contamination.

A comprehensive technical specification is only as good as the contract behind it. It is imperative to formally define and agree on details such as the scope, payment terms, Incoterms® Rules, timelines and critical milestones, sign-off requirements, and dispute resolution criteria should any issues arise. These details can be especially important when dealing with overseas suppliers and can also extend to items such as after sales support, maintenance, and supply of spares. Without a thorough contract it is likely that the scope will be poorly defined and, should there be a dispute relating to any of the above, recourse options will be limited.

Both the technical specification document and the procurement contract are hugely important when equipment is put through factory acceptance testing (FAT). These documents define all the

requirements that must be met and performance targets that have to be reached before any equipment can be signed off. These documents may detail the type and duration of testing required to meet performance targets as well as define design parameters and build specifications that must be adhered to. The physical quality as well as the performance must be of a high standard for the items to be accepted. Integration with upstream and downstream equipment is also assessed to ensure that the system as a whole functions as expected. This is also the last opportunity for any deviations to be addressed before the equipment is shipped and installed.

The final phase of these projects is commissioning and handover where the suitability of the chosen equipment is really put to the test. Final testing is done either in person or remotely and the diagnostic capabilities of the system and operators are verified. Any training or documents, such as a maintenance manual, must be supplied with the equipment as specified in the procurement contract before the final sign-off. At this stage, the client will start to make more use of the after sales services such as technical support and procurement of spares.



For this reason, it is essential to ensure that there is a strong line of communication between the client and supplier so that the client continues to receive a high level of service once the sale is complete.

While equipment selection may seem simple on the surface, the details can quickly become overwhelming. Astratek Manufacturing Engineering offers support through all phases of the equipment selection and procurement process...call on us.



To contact Astratek Manufacturing Engineers for assistance and advice regarding Equipment Selection for your FMCG facility you can scan the QR code and complete the online form or e-mail us at info@astratek.co



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