



White Paper

# Choosing a Food Processing Line Integrator

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Searching for the perfect line integrator for a project can be difficult. The food processor's project needs, budget, and in-house capabilities should align with the integrator's expertise and capabilities to produce an ideal match. Since each situation is unique, the ideal line integrator will differ.

In this white paper, we will explore things to consider in the search for a line integrator. The goal of this paper is to help processors choose a solutions provider that will create a food processing and/or packaging line that meets all performance expectations while getting the project done on time and on budget.

### The Budget

Many food processors begin by identifying their general project needs, their budget, and deciding if they want to outsource or not. The financial ramifications of this decision extend beyond the obvious. If a processor thinks that they cannot afford an integrator, they should ask themselves, "if they can't afford to do it right, can they afford to do it over again?" Many integrators will specify Key Performance Indicators, which can reduce the risk and thus the financial uncertainty of a project. This reduction in project risk can help justify the use of an experienced and competent integrator.

While the scope of the project affects the cost, a good rule of thumb is to allocate 5 to 10 percent of the project cost to a full-service integrator that handles all aspects of systems design and project management. If that is more than the processor can spend, it may make sense to identify the parts of the project that can be effectively handled in-house and outsource the remainder of the project.



### The Processor's Capabilities

Handling all aspects of the integration project in-house is most viable for mature companies with employees who have deep industry expertise, especially when creative new solutions to solving current production challenges are not needed. For this type of processor, the cost of tying up personnel for the duration of the project and the potential fixed overhead of expanding the workforce should be weighed against the cost of outsourcing. Oftentimes, the irregular workflow alone – the peaks and valleys of the project – justifies the staffing flexibility that comes with outsourcing parts or the entire project.

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For processors with less in-house expertise, outsourcing integration will produce the strongest team if the processor selects a service provider with a skill set that complements his employees' capabilities.

If a food processor has strong project management skills in-house, an integrator might handle systems design only. If the processor is looking to increase production capacity with a new line and essentially knows how to accomplish that, the ideal integrator might only manage sourcing, installation, and start-up. If the processor is looking to creatively solve existing production challenges, finding an innovative integrator becomes important. For those entering new markets, hiring an in-house industry expert, along with outsourcing aspects of the project, will likely generate the best outcome.

### The Integrator's Expertise

In general, the more the integrator's expertise is aligned with a food processor's industry and product, the better. With the right background, an integrator will not need to spend considerable time to come up to speed, which allows them to add value quickly and ultimately save the food processor money.

Typically an integrator will be required to put several pieces of equipment together and ensure they work properly. This is done by working very closely with the customer, starting with basic flow diagrams and creating the detailed design specifications and



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system drawings. When selecting a full service integrator, the processor must ensure that the integrator has the capability to manage all aspects of the project from initial project definition through design, procurement, installation, commissioning, and start-up.

Generally the ideal integration company will have deep knowledge about the process for which they have been hired to create a solution. For example, in a baby-cut carrot process line, selecting an integrator that has designed successful baby-cut carrots lines is advantageous. The customer expects carrots that are fresh, don't have green tops, and can be separated into various sizes. In this case, the line integration consists of many pieces of equipment that must work together to ensure a specific outcome. An integrator that has experience with product receiving, cleaning, cutting, optical inspection, peeling, sizing, cooling and packaging would be an obvious choice. Also, since line problems often occur at the transitions between machines, having an integrator with strong material handling experience is always a plus.

Sometimes food processors want to apply or develop innovative new technology in their processing plants. In these cases, an engineering company with deep knowledge of the available technology and one that understands how to evaluate the various solutions via testing and then apply this technology to deliver a world-class project is the best choice for a project integrator.



### The Integrator's Capabilities

To In addition to having industry and technical expertise, the skill set an ideal integrator needs depends on the processor's in-house capabilities and how the processor wishes to divide responsibilities.

If the integrator will handle systems design, the processor still needs to do their homework to make sure the project has been

accurately scoped and independently assess whether the proposed solution will deliver what the line needs to accomplish. This should include an assessment of the biases that are inherent in every project integrator. A bias toward a particular solution based on years of experience delivering solutions that work is very different from a bias toward an unproven technology. Food processors need to ensure the integrator's recommendations are suitable.

If the integrator will handle project management, the processor will want to make sure the integrator can create a schedule and manage it as well as the people responsible for specific project deliverables. The processor will want to understand, in advance, how the project manager will communicate during the project. Since the project manager will greatly influence the success of the project. The processor should meet the project manager that he will work with before he hires the firm. The processor will also want to

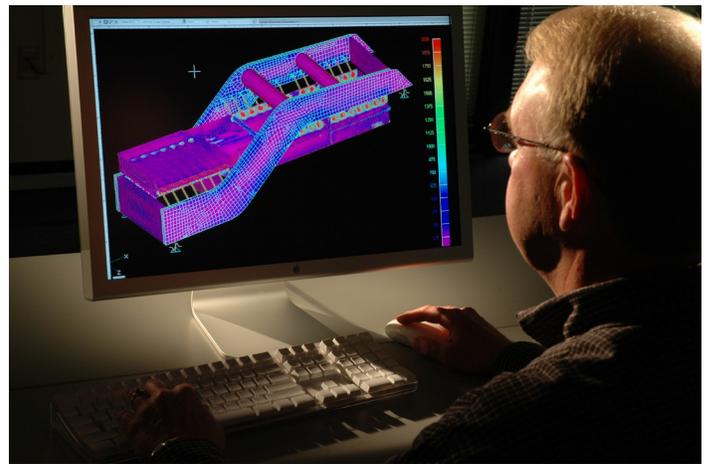
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know, in advance, what contingency plans are in place if performance, cost, or timeline issues arise during the project.

If the integrator will handle ongoing customer service and support, the processor will want to understand who is responsible for what activities and the processor must make sure he will receive the service and support he needs throughout the products' lifecycles. If the processor plans to grow the business and install similar production lines in new locations around the world, choosing an integrator with global operations is an important consideration. At a minimum, the processor will want to work with an integrator that has language capabilities and a service footprint in the regions where lines will be installed.

### The Integrator's Character

Beyond the service provider's expertise and skill set, a food processor will want to investigate other aspects of the firm to assure a good relationship and outcome is likely. It is important to be aware of the trade-offs inherent in some areas and place importance where it's most likely to generate the best results.



An integrator that provides a majority of the line equipment from their own product lines will likely have a deep understanding of what is achievable on the project, but this is only a good choice if their equipment is right for the processor.

Small integrators with one or two employees will probably give their customers the attention they need but may lack the depth of resources to get the job done well, particularly in the event of some unforeseen problem on the project. Larger firms have greater resources but can sometimes be too removed from systems design to achieve the highest efficiencies on the project. In general, fewer problems typically arise with large firms than small firms.

Regardless of the firm's size, financial strength and longevity are important qualifiers. Companies with minimal financial resources may be unable to manage the project as planned. Also, companies without a good history of success may be more risky due to lack of experience.

Additionally, the integrator's culture and values should reflect what's important to the food processor. A relationship is being formed and the better the personality fit between the companies and people, the more likely the overall project will be successful. Integrity, resourcefulness, creativity, excellent execution, and communication may vary widely from firm to firm.

### Questions to Ask

While history does not always define the future, having a successful history certainly increases the likelihood of future successes. To fully analyze a firm, a processor will want to ask many direct questions and conduct secondary research as well.

Direct questions might include the following:

- When was the firm founded?
- How many employees work there?
- How many project managers work there?
- How many projects has the firm completed?
- How many projects like ours has the firm completed?
- How many of those were completed on time?
- How many of those were completed on budget?
- How does the integrator plan to communicate during the project?
- What contingency plans are in place if performance, cost, or time issues arise?
- Who is responsible for ongoing service and support of the line equipment?

Secondary research could include the following:

- Ask the integrator for references and talk with those customers about their experiences. However, don't automatically dismiss integrators that cannot offer references since it's not uncommon for confidentiality agreements to prevent them from divulging the companies they have worked with.
- Ask other processors for recommendations. Good referrals from trusted sources should hold considerable weight.
- Look at financial statements to determine the firm's financial strength and ability to offer ongoing support.

### Conclusion

A line integrator has the potential to provide best-of-breed technologies from a single source. To achieve the greatest chance of success, a food processor should search for an integrator with expertise, capabilities, and character that match the needs of the project and align with the processor's values.

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