



## IMPORTANT FACTORS IN SOURCING LARGE-SCALE PROCESS EQUIPMENT.

The chemical, pharmaceutical, pulp and paper, ethanol, water treatment and other processing industries face changing requirements for large-scale equipment, as new technologies are introduced and environmental regulations become more stringent. Add to this the demands of plant expansions and the replacement of existing equipment and the identification of a reliable vendor, capable of providing high quality products to meet challenging schedules, becomes a very important task. Furthermore, in the procurement process itself the vendor may be required to demonstrate procedures for validation and regulatory compliance, as well as interact effectively with architectural and engineering firms, consultants and construction managers in addition to project engineers and plant operators.

Large-scale equipment by definition can include tanks with capacities ranging from 1,000 to 50,000 gallons used for mixing, separations, settling processes and storage, high pressure vessels and reactors, evaporators, flash vessels, distillation columns, pre-heaters and cyclones. After establishing a need for this type of equipment, the project team is faced with the question: What are the factors that contribute to a better decision for the design, fabrication and installation of the large-scale equipment?

### **Schedules, Shop Loading and Backlog**

It is well known that the project timeline and the cost to complete are closely related. Delays, changes of scope and poor vendor performance will lead to increased costs for the overall project. Therefore it is most important to review the existing workload and schedules at the vendor's facilities to assess the reality of stated delivery times. Presently A&B Process Systems is completing the fabrication and delivery of large-scale, stainless steel equipment with a turn around time that will meet the most demanding schedule. The use of in-house engineering and fabrication resources gives the company flexibility and the ability to provide faster delivery of a more dependable product. Thus delays are reduced and costly consultation services minimized.

### **Installed Costs**

Purchasers often make the mistake of basing their selection of a vendor upon the equipment price alone – instead of the installed cost. The true installed cost is not easily determined because it incorporates “soft costs” in addition to the costs



associated with time and materials. “Soft costs” include the expenses attributed to delays in schedules, contract administration, project management, validation, etc. A&B Process Systems is recognized not only for the fabrication, but also the design and installation of large-scale equipment. The installed costs can therefore be more readily estimated, since the total project can involve A&B’s design/build/install capabilities. Working with A&B Process Systems on all three facets of the project can provide schedule flexibility by taking advantage of A&B’s in-house “people” resources.

### **Reputation**

To aid in the selection of a vendor it is advisable to review the company’s record for the fabrication of large-scale equipment, for their ability to meet schedules and for regulatory compliance. A&B are renowned for the design, fabrication and installation of large-scale stainless steel tanks, vessels and other equipment used in the chemical, pharmaceutical, pulp and paper, ethanol, water treatment and other processing industries. That reputation has been built upon the principle, “Do the job the right way the first time.” A&B Process Systems not only produces high quality products in a timely and cost effective manner, but their experience in large vessel fabrication has made them a preferred supplier to many Fortune 500 firms across a variety of processing industries. Within A&B Process Systems it is believed that it is the “depth of people resources,” the expertise of the engineers, welders, QA/QC professionals and project managers, that sets the company apart from its’ competition.

### **Systems Specific Expertise**

Significant experience in the design and fabrication of large-scale equipment, particularly related to the function and operation of the equipment at the desired size, is another factor to consider. A&B Process Systems can proudly point to the design, fabrication and installation of numerous pieces of large-scale, stainless steel processing equipment for many manufacturing industries. The design phase is generally considered to be the most challenging phase of a project. Given the characteristics of a process, the flow rates, the pressures required and the particular seismic zone, A&B’s engineers are able to custom design equipment for your specific application. This custom designed equipment will deliver the best performance and meet ASME, ANSI, BPE and other applicable regulations.

### **Manufacturing Capabilities and Capacity**

It is important to consider the capabilities and capacity of the vendor to fabricate large-scale processing equipment. A&B Process Systems has four plants located in Stratford, Wisconsin, with approximately 80,000 square feet of manufacturing capacity. Welder-fabricators and welder-fitters are available 24 hours per day, 7 days per week, to provide high quality products. For a particular project manufacturing facilities with a ceiling height of 32 feet and crane capacity of 20,000 pounds are available. An extensive range of large-scale, stainless steel tanks, stainless steel vessels and other stainless steel equipment can



be fabricated in these facilities to meet customer requirements and schedules. The company can also fabricate and install the same high quality, stainless steel process equipment at the customer's location, i.e., "in the field."

### **Quality Management**

Quality management is another important consideration in the selection of a vendor. Again in the design and fabrication of large-scale processing equipment, A&B Process Systems is renowned throughout North America for the quality of workmanship at each of its' plants. The company has plants that are ASME certified and a team of trained QA/QC is available at those plants to ensure that standardized processes and procedures are followed.

### **Materials of Construction**

The materials of construction to be used in the fabrication of large-scale processing equipment is also an important consideration. They should be chosen to provide allowable stress properties, compatibility with other materials in the system, acceptable corrosion characteristics and durability. Soon after entering the field of design, construction and installation of fluid flow systems for a variety of processing industries, A&B Process Systems recognized the importance of the materials of construction. Now after 30 years of experience, the company believes that the stainless steels represent a highly versatile and cost effective choice, since the materials are available worldwide and are easily fabricated by conventional practice. With regard to the fabrication and installation of large-scale equipment, it has frequently been said, " it is truly quite amazing what the people of A&B Process Systems can do with the stainless steels!"

### **Vendor Partnering**

The successful installation of large-scale, stainless steel equipment requires a partnership between the customer and vendor. Both provide critical members of the project team and both should be involved in the specification process and in identifying possible pitfalls and failures. It is evident that clear and open lines of communication should be established at the outset, with fairness and respect from both parties. A&B Process Systems has recognized the importance of "**vendor partnering**" and strive to make this their approach to all customers.

...Look for future white papers from A&B Process Systems Corporation.