

Reducing capital cost

Foster Wheeler has been building pharmaceutical facilities, continuously, in Asia for the past 15 years. In the beginning, all equipment and materials tended to be bought outside the region and shipped to site. However, there is an increasing trend towards local supply for local projects, as well as sourcing items in the region for overseas projects.

This trend is driven by the recognized need for cost-effective capital projects, matched by a growing supplier capability in the Far East. This applies not only to local manufacturers, but also to an increasing number of 'western' suppliers who have manufacturing locations in the Far East.

Foster Wheeler has direct experience, having located one of its major power equipment manufacturing facilities in Xinhui in China. In addition, we are working proactively with Asian suppliers to improve their quality standards, documentation, planning and project control.

Equipment types

Equipment and material sourcing for pharmaceutical facilities fall under a number of headings:

- specialized process equipment and packages: tablet machines, bioreactor packages, complex centrifuges
- clean utility packages
- fabrications of a specialist nature: glass-lined reactors
- general fabrications: stainless steel reactors, storage tanks, skid assemblies
- environmental control plant: air handling units
- utility equipment: chillers, refrigerators
- main electrical equipment: transformers, motor control centers
- instruments and computer control systems
- bulk products: pipes, valves and fittings

Quality and cost

In general, Asian suppliers do not yet have the quality and sophisticated technology to design and manufacture the complete range of specialized pharmaceutical equipment for all technologies such as API, dosage and biotechnology. Some manufacturers are establishing manufacturing sites in lower cost areas like India and China. Some suppliers manufacture clean utility systems in Asia which offer potential savings.

However, there are opportunities for lower-cost Asian procurement sourcing for some items. Of course, cost is only one element of the procurement decision. The ability of the supplier to deliver to the required schedule, offer factory-based acceptance tests, supply complete documentation in the required language, and to provide ongoing maintenance and technical support, are all key considerations.





Keep it simple

Fabrications and package assemblies offer probably the best opportunities for cost savings from countries such as China, Korea, Thailand, India, Malaysia, Indonesia and Singapore.

As more companies build facilities in Asia, and Asian sourcing increases, then a larger number of suppliers will meet international standards. To get a good comparative analysis of the total true cost of the equipment, freight, inspection and other non-equipment-related costs will need to be considered.

Inspection is a highly specialized area and one where we can offer our regional expertise. Simple items such as platforms or more complex pre-assembled pipe racks can offer savings if sourced in, say, Thailand, where quality is good and we have experience and support.

Some of the major global suppliers manufacture air handling and fan units in Asia and offer attractive prices. General utility equipment is normally sourced from the main global suppliers who may manufacture and assemble at different global locations. There are often global pricing policies with pricing advantages depending on the country of origin. This principle also applies to electrical equipment suppliers who tend to manufacture globally, and so procurement within Asia may again offer cost advantages.

Computer control companies are global with hardware sourced from only a few locations around the world. Hardware is either assembled and tested in the country of purchase, or in low-cost Asian centers. Software sources, however, may vary and this is often centered in Asia.

Pipes, valve and fittings have seen significant advancement recently in China, where an ability to manufacture and supply items to meet common international standards with quality control systems comparable to international standards is an area offering great savings.

Start early

In order to take full advantage of the Asian opportunities, procurement managers must be engaged very early in the project cycle working with the team defining the sourcing strategy. Our global procurement team has comprehensive supplier listings to assist clients with limited direct experience of potential Asian suppliers. Early involvement in the inspection of manufacturing facilities and its inclusion in the sourcing strategy is key to achieving the cost advantages that the Asian market offers.