



Ben's Design Tip Corner

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Importance of Membrane Equipment Factory Testing

I know many engineers, like myself, specify and witness major equipment Factory Acceptance Testing (FAT) prior to equipment shipping. The purpose of this short article is to try to convince others to do the same!

Basically, FAT is an "equipment inspection and factory debug" to make sure that when the system arrives on a project site, there are no major surprises, and they get through commissioning quickly and smoothly. FAT almost always saves time and money and headaches over fixing issues in the field. In addition, rectifying issues while the system is still in the possession of the manufacturer helps to keep the project on track and within budget. Fixing minor things at the factory, where it is in a controlled environment and technicians / experts are available is much more reliable and cost effective than sending a crew to the field to repair things.

Just like conducting a dress rehearsal prior to opening night of a performance, FAT gives engineers, manufacturers and the customers an opportunity to do a trial run and see the equipment in operation before it is shipped.



There are varying levels of FAT. They can be performed at a very basic level, such as setting up the main pieces of the membrane system with temporary wiring and making sure everything works or a more complete FAT where the manufacturer physically builds the entire system at the shop to test it fully. Then, the system is then taken apart, shipped to the project site, and put back together. The scope and magnitude of the FAT depends on the type and size of membrane equipment, the available testing facilities at the factory, and how much of the project equipment is available at the FAT