



41 Suttons Lane
Piscataway, NJ 08854
800.580.6268
732.985.7815 ♦ 732.985.7816 fax
www.pei2000.com

TECHNICAL OVERVIEW CAD/CAM CAPABILITIES

At PEI, we design all of our custom enclosures using Pro Engineer (Pro/E) CAD/CAM software. Over the years, we have used and/or experimented with other CAD/CAM packages, however, to date we have not found a more robust, comprehensive, or feature rich development tool for the design and manufacturing of enclosures than Pro/E.

Concurrent Design

For large, more complex design projects, our engineering department can employ concurrent engineering methods through the utilization of such tools as ModelCheck and IntraLink. These two powerful Pro/E modules allow for a number of engineers to work on a single project without the worry of design conflict, redundant data, or misplaced files. While the project may be broken into stages and assigned to different engineers, our advanced CAD/CAM package ensures that the final product is a uniformly designed assembly that looks and feels like a single mind was at work.

Customer Supplied Files and Drawings

As for receiving files from our customers, we can be very flexible. In addition hard copy drawings, we can read native Pro/E files as well as CAD files that have been converted to either .DXF or .IGS formats. As such, for those customers who want to send us a CAD file of their part using a different (non-Pro/E) package, we ask that they convert them to one of these two formats before e-mailing to us. When deciding which format to use, a rule of thumb is that for flat, 2D files, export them as .DXF, and for 3D files, export them as .IGS. Once we receive such files, we will review them and where needed make the necessary corrections to any data that may have been corrupted or lost during the conversion process.

The advantage of receiving .DXF or .IGS files is that we may be able to interrogate the data or maneuver the part to see various views that would offer a better understanding of what the finished product should look like. With flat drawings files or hard copies of them, we can only see what was originally included by the designer and if we have questions about dimensions or features the only way to get the answers is to speak with the person who developed the design.

Please note that while we prefer to receive CAD files rather than part drawings, unless those files are native Pro/E we will eventually have to re-enter the data in order to manipulate the design and develop the detail panels. Furthermore, even for those projects that the customer supplies Pro/E files, our engineers will have to modify the design to comply with our "No Tooling" process. Also, once the model is completed and approved, detail panels, manufacturing plans, and tool paths will need to be developed. These are processes that are beyond the basic part design and will always require development work by our engineers.

PEI Supplied Files and Drawings

As for the CAD files that we create, our policy at PEI is that we will send the assembly drawing(s) for approval as a fax or as an attachment in an e-mail in either .JPEG or .PDF format. We do this simply to control cost and to standardize our design activities such that we can quote a job without concern that developing the deliverables will take longer than planned. If a customer requires assembly drawings be sent in a different format, we will be happy to accommodate most requests, however, any costs associated with complying will be invoiced at our standard engineering rate.

However, we do not send Pro/E native files. Within such files are those features, dimensions and other technical data that comprise some of the proprietary information related to our 'No Tooling' process. As such, we do not provide files or drawings that define the individual panels or the assembly construction. For more information on this, please contact our customer service department.

- *END* -