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MANUFACTURING PROCESS OVERVIEW

Our Manufacturing department is made up of two primary processes. The first is Machining and the second is Assembly. Between these two functions, we also perform secondary operations such as silk screening, RF1/EMI shielding, sonic welding, and other types of processes that may go into the manufacturing of enclosures. While not every enclosure will require these additional processes, most will need some level of secondary operation in order to meet our customers' specifications.

For a typical project that would require all of our manufacturing operations, the following is a general guideline of the sequence of events.

- 1) Pre-shielding
- 2) CNC Routing
- 3) Secondary Machining
- 4) Decorating/Silk Screening
- 5) Sonic Welding of Standoffs and Inserts
- 6) Bending
- 7) Subassembly build up
- 8) Final Assembly Build Up
- 9) Assembly Inspection
- 10) Painting
- 11) Final Inspection
- 12) Packaging

Please keep in mind that the sequence of the steps presented above can be changed based on the overall project. As an example, depending on the level of RF1/EMI shielding required, we may have the plastic sheets shielded before or after CNC routing. Or, the silk screening may be required to go on the panels after the entire enclosure has been assembled due to painting requirements. The key point here is that our process is extremely flexible and as long as the laws of physics are not an issue, we will do whatever it takes to produce the enclosures that our customers want.

Finally, as with most manufacturing companies, we perform regular and routine inspections throughout the entire production process. Because our products and our process are geared for customization, each project is evaluated as to what, when, and how the inspections are performed. For that reason, it is not possible to list standard procedures for which dimensions or the product functionality are checked. What we can state is that each time a job is released to the production floor, every panel, manufacturing process, and subassembly will undergo a thorough first article inspection including sign-offs on a fresh set of manufacturing drawings. Furthermore, for quantities that justify in-process inspections, time-lines are established and on-going inspections of key attributes or dimensions are performed. The end result is a cost effective process for ensuring high quality enclosures for low quantity volumes.

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