

# Dynamics AX vs Dynamics GP for Manufacturers

Dynamics AX and Dynamics GP both offer extensive functionality for a broad range of manufacturers. Each system can be used to schedule and execute production orders in batch or discrete manufacturing environments, trace lot and serial numbers from cradle to grave, perform material requirements planning, manage outside processing / subcontractors, and control inventory costing with material, machine, labor and overhead components.

However, Dynamics GP is designed primarily to meet the needs of single-site, quick-turn manufacturers, where tracking materials is more important than controlling the production process itself. Companies with longer production cycles that must track the execution of each operation in the production process will find a better fit with Dynamics AX. Furthermore, Dynamics AX is designed to support multi-site manufacturers, where materials may be shared across multiple facilities. Finally, Dynamics AX has functionality to meet the needs of process manufacturers, and also to address quality control requirements, making it a very solid solution for FDA regulated industries, such as pharmaceutical and medical device manufacturers, as well as food and beverage manufacturers. Some specific differentiators are as follows:

- **Quality Control:** Dynamics AX offers the ability to manage quality testing as part of both the production and purchasing processes, preventing failed lots of inventory from moving forward in the process.
- **Integration with MES systems:** Dynamics AX provides a more robust ability to interact with Manufacturing Execution Systems that capture inputs and outputs to the production process directly from equipment used in the production process.
- **Inventory Dimensions and attributes:** Dynamics AX allows inventory to be tracked by product configuration, size, and color. It also allows attributes to be assigned to lots based on test results.
- **Warehouse Management:** Dynamics AX offers multiple levels of inventory tracking (Site, Warehouse, Aisle, Location, and Pallet), as opposed to just Site and Bin, as is the case with Dynamics GP.
- **Manufacturing Execution / Shop Floor Control:** Dynamics AX allows for the detailed tracking of the progress of a production order through the various operations, controlling the quantities that move onto the next step in a sequence.
- **Process manufacturing:** With batch production in Dynamics AX, a single production order may result in the production of a primary product and by-products, or the production of multiple co-products. Formulas may also be defined in lieu of Bills of Materials.
- **Multi-Site MRP:** Dynamics AX can accommodate multi-site manufacturers that share materials across multiple warehouses, as opposed to planning replenishments for each warehouse in isolation.
- **Quarantine Management:** With Dynamics AX, items can automatically be quarantined upon receipt/production, and are ineligible for usage until released.

