

Sage 300 Manufacturing



Introduction

Automating your manufacturing processes in a simple and practical way will help your business gain significant competitive advantages and minimize costs and risks associated with high inventory levels. Use Sage 300 Manufacturing to rise to the challenges of a constantly evolving industry, with fast moving technical changes and stay competitive.

Product Information

Sage 300 Manufacturing Order (M/F) is an easy-to-use manufacturing solution for small to medium-sized enterprises. Simple yet powerful, it enables an efficient manufacturing operation flow covering manufacturing orders, work in progress, routing cost calculation, material consumption, material scrap and item substitution and order closeout. The design of Sage 300 Manufacturing Order is conceptualized to fully accommodate users' business processes needs and expectations.

Sage 300 Purchase Planning (P/P) module is an easy-to-use production scheduling and materials requirement planning solution Using the manufacturing and BOM information in Manufacturing Order and the sales, stock and purchase information in Sage 300 ERP, Production Planning can now truly generate a full blown basic MPS and MPR plan.



Sage 300 Manufacturing Lot Tracking Add-on (M/L) module fully integrates with our Manufacturing Order (M/F) and with the lot/serial of Inventory Control (I/C). It allows warehouse personnel to define lot/serial tracking information for materials issued, returned and received in the warehouse.

Sage 300 Shop Floor Control (S/C) module allows users to record time entries and shop transactions of MO operations. It provides detailed production data between the release of MO to the receipt of MO order quantity. Shop transactions include the setting up of stations to the actual runtime. S/C also tracks the occurrence of station downtime and indirect stoppage.

100% Sage 300 ERP SDK

- Same look and feel for easy implementation and roll-out

Single Inventory Control

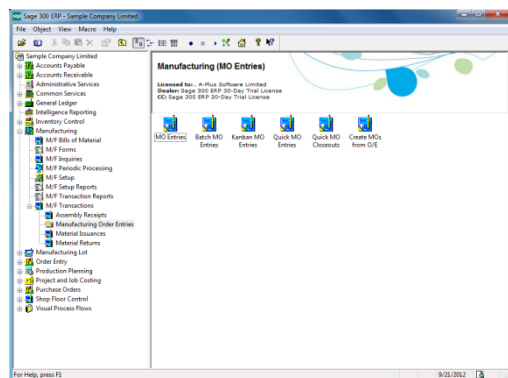
- Makes full use of Sage 300 ERP Operation modules (i.e. I/C, P/O, O/E)

No Separate User Licenses

- No duplicate or overlapping user licenses

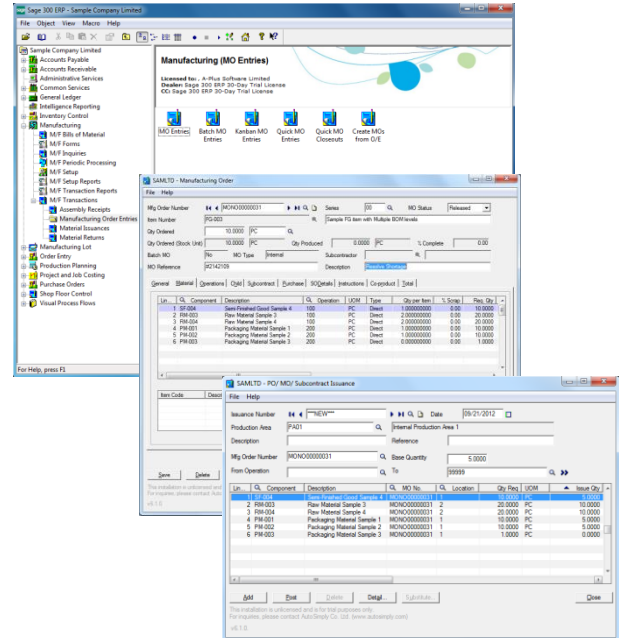
Truly Seamless Integration

- No batch processing and separate data reconciliation



Key Features of Sage 300 Manufacturing Order (M/F)

- Supports multi-level BOM structure:** This facilitates the management of products and components in the BOM. M/F allows an unlimited number of BOM codes and revision numbers per product. Co-products together with instructions can be linked to each BOM record.
- Better production floor management:** Achieve more with manufacturing orders (MO), like linking it to open sales orders or purchase orders, or closing them out to calculate costs and production variances.
- Increased accuracy of cost calculation:** Production costs can be based on both material and resource requirements. Resources can be used to represent labor and overhead costs. Rolled up standard costs is initially used during MO Receipt. MO costs are eventually adjusted to actual during MO closeout.



Multi-level BOM with Operations

- Can support up to 16 BOM levels, multiple BOM versions and usage of phantom BOM's
- Item routing information with resources and tools

Average/Standard Costing

- Item costing is generated by Sage 300 ERP Inventory Control module

I/C Stock Balance & History

- All transactions are posted directly to I/C stock and history tables

Supports Backflushing & Kanban

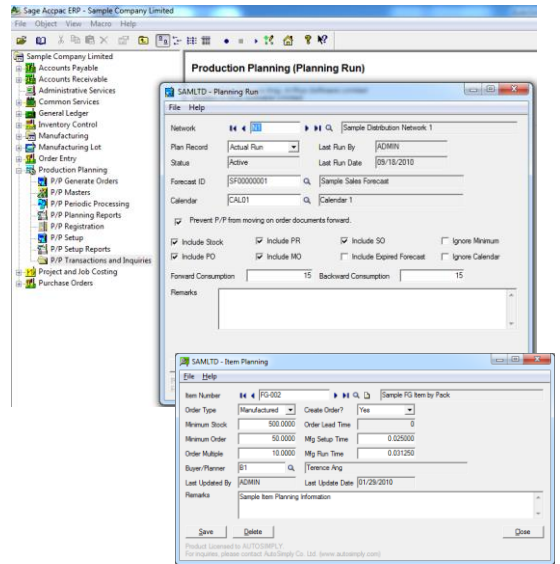
- Optional MO issuance, returns, receipt or backflushing transaction

- Operation-based MO Transactions:** Production floors can be divided into work centers used by BOM operations. MO transactions such as material issuances, WIP consumption or scrap can now be performed by operation rather than just by MO.
- Easier monitoring of WIP:** Materials issued from I/C Locations to M/F MO's are automatically tracked as WIP. The M/F WIP Consumption and Scrap transactions allows user to record WIP movement as it happens. Finally, MO closeouts automatically allocate unconsumed WIP.
- Ease of component substitution:** Components during MO issuance can be substituted according to user preference. Depending on setup, production personnel can be allowed to modify MO BOM's and insert or modify component requirements.



Key Features of Sage 300 Production Planning (P/P)

- **User defined location networks:** Users can now define the scope of distribution networks by grouping I/C locations to form networks. P/P supports an unlimited number of distribution networks.
- **Easy definition of buyers/planners:** An unlimited number of buyers for purchased I/C materials and planners for manufactured I/C products can be defined. Planning inquiries and reports can be generated by buyers or planners.
- **Flexible item planning parameters:** Users can now define safety stock levels, order multiples, or maintain manufacturing and purchase lead times for each item record in I/C. Automatic planned orders can also be generated for selected items
- **More realistic purchase/production plans:** With the use of item specific planning parameters, economic order quantities and supplier minimum order requirements can now be better simulated to create more realistic plans.
- **Better management of sales forecasts:** Forecasts can be inputted, imported and even generated for use during planning runs. Using forecast consumption, P/P uses actual O/E sales orders to consume sales forecasts.
- **Better management of planned orders:** Planned orders can be confirmed and eventually be automatically converted to P/O Requisitions or M/F Manufacturing Orders.



Seamless I/C & M/F Integration

- Automatic extraction of I/C stock, O/E sales orders, P/O orders and M/F manufacturing data

Realistic Item Planning Data

- MRP plans use minimum stock, minimum order and order multiple quantities
- Considers manufacturing and purchase lead times

Net of Change Planning Run

- Supports both regenerative and net of change planning logic

Automatic MO&PR Generation

- Planned orders can be automatically converted to manufacturing orders in M/F or purchase requisitions in P/O

Key Features – Sage 300 Manufacturing Lot (M/L)

Single Lot/Serial Tracking System

- No separate maintenance for lot/serial
- Single data for lot/serial balances and history

MO Issuance from Lots /Serials

- MO material consumption is tracked against component lots or serial numbers.

MO Returns to Lots / Serials

- Material returns are posted against original component lots or serial numbers.

MO Receipts to Lots / Serials

- Output of MO's are recorded against user defined I/C lots or serial numbers

- **Seamless I/C Lot/Serial Integration:** Fully online, MO transactions are immediately reflected in Sage 300 ERP balances and history. M/L effectively combines manufacturing data with purchase and sales records kept in I/C from the P/O and O/E modules. It also supports all existing I/C lot/serial reports and queries.
- **Single Lot/Serial Tracking System:** Using the same I/C look and feel, users will find it easy to post manufacturing transactions. There is no separate item lot/serial setup as M/L makes use of I/C Item for all settings. M/L fully supports the built-in quarantine, product recall, adjustment, warranty and contract features of I/C.

- **Lot/Serial Tracking for MO Issuances:** For lot/ serial tracked items, users are prompted to allocate MO issuances against lots/serials. M/L considers default allocation settings in I/C as well as lot/serial status (e.g. quarantine).
- **Lot/Serial Tracking for MO Returns:** When posting MO returns, users will be required to allocate each quantity to a lot/serial record. M/L allows users to create a new lot/serial record for the component return.
- **Lot/Serial Tracking for MO Receipts:** Users are prompted to allot lot or serial numbers for production output based on I/C settings. Information include stock date and projected expiry dates. Lot and serial numbers can be automatically generated.

Lin	Component	Description	MO No	MO S	Qty Req	Qty Issued	UOM	Issue Qty
1	RM-020	Raw Material Sample 1- Lot	MO00000037	00	5.0000	0.0000	EA	5.0000
2	RM-021	Raw Material Sample 2 - Lot	MO00000037	00	5.0000	0.0000	EA	5.0000
3	RM-022	Raw Material Sample 1 - Ser...	MO00000037	00	5.0000	0.0000	EA	5.0000
4	RM-023	Raw Material Sample 2 - Ser...	MO00000037	00	5.0000	0.0000	EA	5.0000
5	RM-024	Raw Material Sample - Seria...	MO00000037	00	5.0000	0.0000	EA	5.0000

Lot Number	Lot Quantity	Expiry Date
00000-PA024	5.0000	6/19/2011

Lot of Material: EA 5.0000
 Lot Qty Required: 5.0000
 Allocated: 5.0000
 Remaining: 5.0000

Key Features – Sage 300 Shop Floor Control (S/C)

Transaction Date	Transaction Type	Operator ID	Work Center	Station	Time (Hrs)	Reason	User ID	Comments
10/3/2012	Direct Runtime	OP1	WC01	AS01	0.25	R01	ADMIN	
10/4/2012	Downtime	OP1	WC01	AS01	9.00	R01	ADMIN	
10/5/2012	Setup Time	OP1	WC01	AS01	1.00		ADMIN	
10/5/2012	Direct Runtime	OP1	WC01	AS01	0.25		ADMIN	
10/5/2012	Direct Runtime	OP1	WC01	AS01	0.33		ADMIN	
10/9/2012	Indirect Stoppage	OP1	WC01	AS01	0.45	R02	ADMIN	

- **Detailed Time Entries for Shop Floor:** Production can now effectively record actual operation times against MO products and operations. Time entries include setup time, direct runtime, cleanup, rework, downtimes and indirect stoppages.
- **Operator & Shift Information:** S/C Time records include shop operator and shift data. This allows process engineers to analyze performance on a per operator, per shift basis.
- **Work Center & Station Records:** Work Centers in M/F are further divided into stations in Shop Floor. Time entries include both work center and station information for use in utilization analysis.
- **Automatic MO WIP Consumption:** S/C allows MO Work in Progress (WIP) quantities to be consumed based on receipt and scrap quantities in shop floor. This provides online WIP balance information for M/F.
- **Shop Floor User Maintenance:** For ease of use, S/C provides for a shop floor user master where defaults can be maintained per user ID. Shop time entry method is also defined per user.

Seamless M/F Integration

- Posting of shop time entries against M/F MO products, operations and work centers

Effectively of Shop Operations

- Analysis of MO runtime, setup and cleanup operation efficiencies

Utilization of Machine Stations

- Recording of station downtimes and indirect stoppages with matching reason and comments

Two (2) Time Entry Methods

- Supports both offline time entries and online start-stop time entry method

- **Optional Resource Cost Allocation:** Cost accountants can periodically allocate actual resource costs (e.g. Overhead) to products via MO records. Cost allocation can be based on proportional labor hours or material issuance costs.



Sage 300 ERP

Sage 300 ERP is a global comprehensive, flexible business management solution designed to keep your total cost of ownership low by supporting multiple technologies, databases and Operating systems.

Available in multiple editions, Sage 300 ERP gives you the opportunity to add users and adopt greater functionality as your business grows, offering built-in support for multiple languages and multicurrency transactions, so your business can comfortably operate in countries of choice.

Sage 300 ERP Connects of your entire operation with a single, integrated solutions that provides you with greater visibility, making it easier to share information and communicate. Mid-market businesses across the globe use Sage 300 ERP solutions to unlock potential, reduce costs and improve performance.

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