

Manufacturing

*An end to end solution for
engineer-to-order and
make-to-stock manufacturers*



EXECUTIVE SUMMARY

Complete Manufacturing Solution

Manufacture for Stock

Manufacture for Order

Process Manufacturing

Discrete Manufacturing

Multi Level Bills of Material

Sales Options Configurator

Work In Progress

Detailed Audit Control

Integrated Cost Accounting

Essential to success is having integrated systems that facilitate and provide customer and supply chain collaboration, providing wide-ranging visibility to your operations and addressing unique challenges in your operational environment.

Embrace provides a complete end-to-end solution for both engineer-to-order and make-to-stock businesses by providing tools to streamline business processes, from forecasting to invoicing, and improve operational planning and financial management.

Embrace's Bill of Materials, Engineering Effectivity Dates and links to factory documentation enable you to implement controls to ensure that your manufacturing processes are consistent and that products are manufactured to the correct designs and specifications. Single-level, multi-level and by-product bills are all catered for and flexible bill definitions accommodate complex component and sub-assembly requirements and allow for the issuing and tracking of raw materials, using both physical counts and variable mass or measurements.

Embrace's lot traceability and serial tracking features enable product and component traceability throughout production and factory documentation can be printed or viewed on-line.



Embrace's Work in Progress solution enables the efficient execution of jobs, as well as day-to-day monitoring of job-related activities, costs, scrap and exception events. The back flushing option for Process Manufacturing enables integration to shop-floor data collection systems to process transactional updates automatically.

The ultimate success of your businesses is dependent on your ability to provide customers with the right goods, at the right place, at the right time. Inventory control is a key aspect of every manufacturing business and Embrace's integrated MRP II and inventory management solutions are designed to coordinate the actions of all business segments within your organisation to ensure that the correct level of stock is maintained, both of raw materials for production and finished goods to satisfy customer demand.

Embrace's integrated nature provides real-time and complete visibility across your operations. Our easy-to-use, powerful functionality promotes improved manufacturing and operational efficiency and excellent customer service. For companies needing extensive but easy to use manufacturing functionality, Embrace Manufacturing is an ideal solution.

Embrace customers use Manufacturing for:

- Providing comprehensive visibility of their manufacturing operations
- Managing customer specific design and product requirements
- Managing and tracking costs and efficiency
- Improved product compliance through Engineering effectivity control



Manufacturing

“Manufacturing chemicals is very different to manufacturing cars and other equipment. What goes into the mix is vastly different from what comes out and chemicals have yield variances.

The Active Pharmaceutical Ingredients (API) have a shelf life, as do the finished products.

The enhanced monitoring of the raw material use-by dates and batch quality control, in Embrace, ensures that we are not left with expired stock and that there is no wastage.

ACS implemented and integrated a sophisticated MRP solution to meet these complex requirements.”

Paul Palm
Director-Information
Services Division
Merck (Pty) Ltd South
Africa

Features	Benefits
Integrated Solution	<ul style="list-style-type: none"> ● Integrated to Purchasing to track procurement and receipt of raw materials ● Integrated Shop Floor and Capacity Planning provides visibility of available capacity and highlights potential constraints ● Integrated to Forecasting, MRP and DRP to ensure inventory planning flow through from Sales to Manufacturing and Purchasing ● Tracking of WIP costs, overhead recoveries and costs of production
Multi-level Bills of Material	<ul style="list-style-type: none"> ● Enterprise wide Bills of Material with specific managed access provides complete control and visibility ● Detailed drill down enquiries from Manufacturing Orders showing outstanding requirements, stock availability and possible alternatives ● Sales Option configurator allows customer specific definitions to be designed and manufactured based on a set of standard options ● Chronological history of all transactions provides detailed audit trails for governance compliance and risk management
Complete Financial Records	<ul style="list-style-type: none"> ● Accounting and WIP Costing records are maintained in a single environment providing ease of use ● “What-if” simulator allows you to assess cost implications of design changes before updating the Bills of Material ● Linked transactions from Sales Orders and Purchasing tie up specific costs to manufactured items ● Fully auditable records and detailed reporting provides accurate financial records
Forecasting and MRP	<ul style="list-style-type: none"> ● Enables manufacturers to refine predictions of future sales based on past history and demand ● Perform real MRP II planning for your production and purchase needs. ● The system can generate Suggested Purchase Orders, Stock Transfers and Reconfigures automatically. ● Graphical plan board shows the planned and/or released production orders

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Manufacturing

PRODUCT

Manufacturing

MRP

Bills of Material

RELATED PRODUCTS

Inventory

Purchasing

Sales Orders

Stock Transfers

Forecasting

DRP

“Our business has continued to diversify, grow and evolve, while Embrace software has continued to evolve alongside us to give us the sophistication and customisation capabilities we need to grow our business and meet our ever-changing requirements.”

John Lachenicht
Chief Executive Officer
AAD Group

Embrace provides a complete end-to-end solution for both engineer-to-order and make-to-stock businesses by providing tools to streamline business processes, from forecasting to invoicing, and improve operational planning and financial management.

Embrace’s integrated nature provides complete real-time visibility across all of your operations. The easy-to-use yet powerful functionality promotes improved manufacturing and operational efficiency, supporting excellent customer service. Embrace manufacturing software integrates seamlessly with the Embrace Financials and Distribution modules.

Multiple Units of Measure

Embrace’s multiple units of measure feature enables accurate ordering, manufacturing, selling, pricing and costing of inventory items by enabling the transactions to be processed in any relevant unit of measure. For each SKU, you can define an unlimited number of units of measure, e.g. stocking, alternate, purchasing, pricing, costing, etc. The Concurrent Unit feature allows all transactions to track both a physical count and a variable mass, length or volume equivalent, specifically designed for environments handling variable mass products.

Product configuration

Embrace’s Sales Option Configurator enables manufacturers to differentiate their product offerings through the ready customisation of products to meet customer specifications. The Sales Option Configurator provides a rules-based configurator, using flexible bills of material, to help customer define specific requirements and allow manufacturers to efficiently process orders for products that are manufactured-to-order, assembled-to-order or sold in various different configurations. Direct specification by the customer helps reduce configuration errors and can limit the need for the involvement of experts in routine transactions.

Design systems integration

You can use Embrace’s attachments features to link objects such as drawings, designs, certificates and video clips to part numbers, to inform production staff and provide them with quick links to the relevant paperwork.

Customer Equivalent Part Numbers

A customer equivalent stock code is an item which you and your customer refer to using different naming conventions. Using the customer equivalent stock code feature, a cross-reference is created, linking the two references which enables your customer to place orders using their naming convention or product code, with Embrace automatically retrieving your reference code and displaying both at the time the sales order is captured.

Linked sales orders, purchase orders and jobs

The ability to create sales orders, purchase orders and manufacturing orders that are all linked and referenced in Embrace provides a quick and simple way of raising and linking those transactions required to fulfil a customer order.

Future Stock Status with Available-to-Promise

Embrace’s Future Stock Status enquiry feature enables you to make reliable delivery promises to your customers by showing the anticipated inventory levels and planned production and receipts that will be available to fill customer orders and on which dates.

The Shop Floor Scheduler

Embrace’s Shop Floor Scheduler provides you with the means to automatically schedule and reschedule all manufacturing orders that are at or are due to arrive at a work centre in priority code sequence, whether system generated or manually set. Manufacturing jobs are selected and a specific priority can be assigned with special orders with squeeze control always having priority.

The Shop Floor Scheduler takes into account inventory levels, multi-level bills of material, existing jobs for sub-assemblies and purchase orders for materials when calculating inventory demand to supply and ensures that parent - Item jobs are not scheduled before jobs for sub-assembly items.



“The Embrace Manufacturing & MRP11 modules were developed with us and meets our specific requirements.”

**John Lachenicht
Chief Executive Officer
AAD Group**

RELATED SERVICES

Embrace Support Representatives can assist with designing solutions and implementing additional requirements

Application Support through the ACS Support Centre

Embrace Training

For more information on any of our products or services please visit us on the web at

www.Embrace.co.za

or contact your Embrace Account Manager or Sales Representative.

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Manufacturing

MRP Calculation

Forecasting and re-order point mechanisms, along with flexible replenishment rules, enable you to hedge against unpredictable supply of longer lead time raw materials. Material Requirements Planning and Inventory Management provide facilities for calculating what you need and when it's needed, factoring in all planned and available sources of demand and supply, supplier and replenishment lead times, current inventory levels and both ordering and stock transfer policies.

To execute your production plans and achieve a high level of manufacturing agility, you need visibility of current and future demands, resource availability, schedules and material plans, as well as user-friendly tools that enable you to respond quickly when things change. Embrace provides an integrated view of the elements that impact capacity planning, enabling improved resource management and utilization.

Embrace Shop Floor Scheduling assists you in maintaining accurate and up-to-date production schedules that take account of your material plans and the complexities of your factory. Better co-ordination between work centres promotes increased productivity, reduced work-in-progress and improved customer service levels. Scheduling functionality extends from single-constraint scheduling to multi-constraint scheduling and sequencing.

Embrace Manufacturing offers an unparalleled combination of functionality for organisations with a focus on discrete and repetitive manufacturing. The solution has been specifically designed to meet the demanding requirements of these organisations. The result is a flexible and tightly integrated software solution, with rich functionality, that is very easy to use.

Manufacturing Orders

Through its structured design and capability to maintain and manage existing Manufacturing Orders, Embrace enables the rapid entry of production orders for the manufacture of both standard and non-standard products. The creation of Manufacturing Orders results in automatic allocations of raw material and both internal and subcontract labour based on routines and bills of materials, including specific product configurations formulated using Embrace's Sales Option Configurator. The creation of non-standard bills in the engineer-to-order environment and the resulting allocations flows directly from the Sales Configurator and into the rapid creation of the resulting detailed Manufacturing Orders.

Enquiries and Reports

Enquiries include Bill of Material Enquiry, Bill of Material Comparison Enquiry, Component Where Used Enquiry, Work Centre and Operations Where Used Enquiries, Component Availability Enquiry, Manufacturing Order Status Enquiry, Work Centre Loading Enquiry and Product Reorder Enquiry.

Extensive reporting includes MRP outcomes and exceptions, Planned Production reports, Movement and Valuation reports, Shop Scheduling reports, Bill of Material reports, Operations and Routing reports. In addition user defined reports can be created using the integrated Embrace Report Writer and all of the reports can be printed, viewed on the screen, exported to Excel or created as PDF documents.

For companies with a need of extensive but easy to use manufacturing functionality, Embrace Manufacturing is the ideal solution.

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