# Metals
## Industry
### White Paper

## Why General ERP Isn't Enough

**VERTICENT**

# The Metals Industry

# Why General ERP Isn't Enough

When metal distributors and fabricators both large and small go looking for software solutions they invariably investigate ERP products, as well they should. Why is it then that ERP solutions generally fall flat when presented with the business requirements of this industry segment? This White Paper answers that question and hopefully achieves two primary goals. The first is to introduce the business requirements of this unique industry and outline why generic ERP just isn't enough. The second goal is to provide insight into how Verticent **ERP Plus™** can address the unique requirements of this industry segment with its integrated and comprehensive applications.

The unique nature of metals products means that inventory information is critical. Attributes, or specifications, including heat, width, length, gauge and grade must be precisely tracked. Detailed information on chemical and physical properties must be recorded and evaluated by these businesses. Tracking of inventory up and down the supply chain, including lot, heat, tag and certifications is also vital. This inventory information, and how it is used to optimize operations, is often a major stumbling block of a general ERP solution provider. For example, when companies in the metals industry approach mainstream, or general, ERP providers and ask for solutions to managing down costing of drops and remnants, they are often met with a blank stare. At Verticent, this unique inventory requirement found in the metals industry, as well as the others, are addressed within the **ERP Plus™** application suite.

The following pages outline what business processes an ERP solution in a metals environment must deliver, and it answers several key questions.

***Do I have the inventory to meet the customer's specifications and quantity?***
***Where did this material come from and where did it go?***
***Inventory is my biggest asset…How can I manage it better to improve profitability?***
***How can I more efficiently meet my customer's demand?***

This paper should help companies involved in the metals products industry to identify the unique and important requirements needed within an enterprise solution.

## Do I have the inventory to meet the customer's specifications and quantity?

Parsed Item Lookup allows for effective item searches down to the piece level. It efficiently displays attributes you define such as Gauge, Width, Length, Heat No., Schedule, ID and OD. This places quality inventory information just a few mouse clicks away. Adding advanced sorting and filtering capabilities and the exact piece of inventory can be identified in seconds.

When the stock on hand can't satisfy the requirements for the order, you can quickly view material on order and see when it will arrive, and what the specification and attributes are. If you don't have stock on hand or on order you don't have to wait unit MRP generates an action message, because you can create a requisition order on the fly and move on to the next order line.

What if you don't stock the item the customer is requesting, or have never purchased the item? Buyouts can be handled quickly without disrupting the normal order flow. These buyouts can be drop shipped directly from the supplier to the end customer or sub-contractor if outside value added services are being performed.

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Page 2 of 7

While general ERP solutions may offer a method of determining inventory availability, only **ERP Plus™** allows for user definable attributes to be associated and validated for each item and each piece of stock within that item's inventory. These attributes can be quantity based with minimum, maximum and actual values for dimensional needs like width, length and gauge. The attribute can also be a predefined set such as Hex, Square, Rectangle, or Irregular used to define shape of the product.

### *Where did this material come from and where did it go?*

Metal processors and service centers need to trace the ancestry of an inventory tag from Purchase Order Receipt, to Customer Deliver Ticket. This is not a nicety but a must have requirement. It is invaluable to be able to enter a Master Tag Number or Heat Number and see every piece produced from the master tag along with what processes were performed, at what cost; while also providing details as to who purchased the piece, when and for how much. This allows you to see how profitable each Purchase Order or Master Tag was. This information shows what each customer purchased and how much profit was generated from that order, part, or tag.
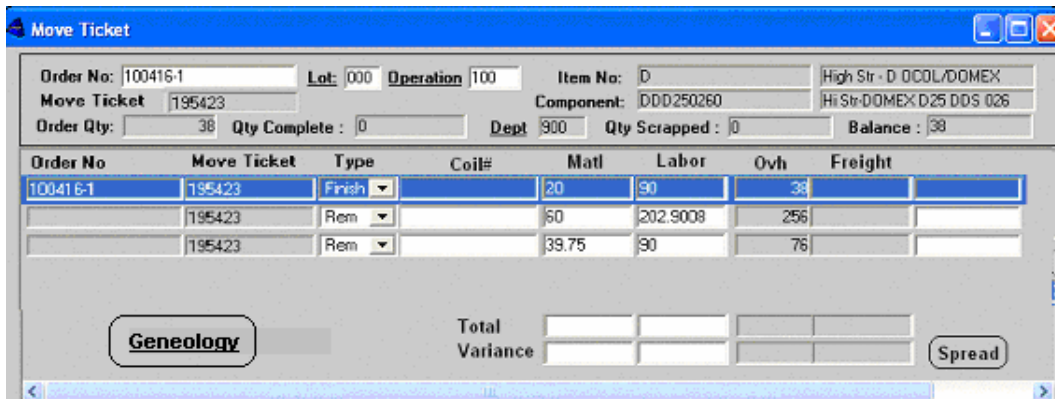


During the Quoting and Order Entry process having historical cost and pricing data available for instant retrieval is critical to servicing the customer while you have them on the telephone. This comprehensive cost and pricing history is available only a mouse click away. **ERP Plus™** provides this depth of inventory information necessary in the metals industry.

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Page 3 of 7

## *Inventory is my biggest asset…How can I manage it better to improve profitability?*

Pose the following question to generic ERP providers: Does your solution automatically compare available inventory specifications like Width, Length, Gauge and Chemical and Physical properties against a customer's order specifications and show which pieces of inventory meet the customer specifications and which pieces do not? You already know the answer and that's part of the reason that general ERP just is not enough.



Part of the *__Plus__* in **ERP Plus™** is our Material Selection Optimizer. Our optimizer pre- filters inventory whose dimensions, chemical or physical properties do not match the order specifications. The current order is then nested with other open orders that can be produced from the same inventory result set. A cutting layout (shown below) to optimize yield is produced which identifies expected remnants. The expected remnants are highlighted allowing the sales staff to see when remnant will be created and the size of the remnant.

## Cutting Layout:

**Order Details:**

| Order-Line Item(s) to Produce | | | | | | |
|---|---|---|---|---|---|---|
| **Order - Line No** | **Part** | **PCS** | **WIDTH** | **LENGTH** | **As Cut Size/ Weight/PCS** | **Q/C** |
| ‖‖‖‖‖‖‖‖‖‖ (barcode) <br> **100418-2** | **2** | 2 | 20.000 X | 500.000 | | |
| CONTENNIAL MATERIAL HANDLING <br> **PO** 100418 <br> **CSR** Ouellette,Todd <br> **Ship Date** 10/22/2004 <br> **Carrier** UN <br> **Doc UOM** Pound | | Width = 20.0   ID = 20   OD = 10.0   DOCS = CERTS   PACK = Pallet   Yield = 1.0   Olsen = 1.0   SPECS = GM-1   Volumn = 250+ \ Coil LT 299   Master Width = 24-35.9   FREIGHT = Fgt To Cust | | | | |
| | | **Next Oper  Process Key** <br> 300  PACK | | **Work Center** <br> 900700 | | |
| **Expected Remnants** | | | | | | |
| 195423 | **R1** | 1 | 60 | X  293.1508 | | |
| 195424 | **R2** | 1 | 19.5 | X  500 | | |

MRP (Material Requirements Planning) sounds great to a business whose life blood depends on having the right inventory levels to satisfy customer requirements while minimizing cash expenditures.  But traditional MRP systems only look at quantity on hand, demand quantity and on order quantity.  Standard MRP will tell you if you have enough tonnage to meet the customer demand. But it won't tell you if the available tonnage that meets the specific customer dimensional specifications.

The MRP module within **ERP Plus™** recognizes when current demand cannot be satisfied by in stock inventory due to dimensional issues and includes that unsatisfied demand in its reorder messages.  Recognition that inventory is *multi-dimensional* and *multi-faceted* is the first step in a giant leap to inventory management in the metals industry. The second step is ensuring that the enterprise solution is comprehensive, provides a solid technological foundation and provides solutions for these unique real-world business requirements.

### *How can I more efficiently meet my customer's demand?*

Knowledge that you have the product the customer wants and that you can provide the value added services the customer desires still falls short if you can't effectively support the delivery of the product with the documentation.  Each customer wants to be invoiced in their unit of measure of Pieces, Pounds, Hundred Weight, Lot, Kilo and more.  Customers have specific labeling requirements, packaging requirements and materials handling capabilities. Finally, customers often require detailed Certification or Material Test Reports.  If your software solution cannot handle these requirements seamlessly, the hidden administrative costs will quickly erode your profit margin.  Verticent **ERP Plus™** supports the flawless execution of satisfying customers demand in the metals industry!

Automatically creating purchase orders for sub-contract services directly from the sales order, saves time, and improves profitability by insuring all tasks required are tracked and costed properly.

Shop floor data collection requires a simple, single point of entry for data capture!  General ERP products typically do not address this requirement. **ERP Plus™** excels in this area through the following metals industry capabilities:

1.)  Provide the Location, Heat, Size and Quantity of material to pull from inventory.
2.)  Display the Finished Product, Scrap and Remnants they are expected to produce.
3.)  Allow the employee to record actual products produced and to record the time expended to produce them.

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Page 6 of 7

In summary, before Verticent **ERP Plus™**, the market of ERP solutions for the metals industry consisted of two types of companies. First, the general ERP providers, who likely have a solid product, but not one that meets the dimensional inventory, chemical and physical properties requirements that are vital to the industry. Second, Metals specific industry solutions providers, who may address the complexities of the industry, but do not provide a sound technology platform, nor do they provide a complete front to back office enterprise footprint including Sales Force Automation, Business to Business e-Commerce and built in Business Intelligence.

The future demands a lean, technologically sound, integrated application solution. Such solutions must provide the complete dimensional, chemical and physical analytical tools to meet the expectations of a demanding industry!  These analytical tools can only be found in Verticent's **ERP Plus™.**



### For more information:

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