



## TURNING OFF THE MRP SYSTEM: THREE EXAMPLES

par Bill Belt

Here are three companies that I know which have implemented Lean and, consequently, turned off their MRP planning system. Their reasons were: a desire to work to customer order, not to forecast; to stop pushing products into inventory; and to have better customer service. An additional reason was to reduce the IT (Information Technology) costs for their ERP (Enterprise Resource Planning) software.

**First example: an automobile supplier.** This company, pressured by their customers to do Lean, which it does very well, has a medium-sized ERP software package which works well, but was turned off. With lead times of only two days and only two dozen components in its product, the company thought it could get by without a normal planning system. Instead of planning requirements with the ERP software, the planners do it directly from the customer delivery program using spread-sheet software.

The problem is twofold: (1) there are still about 200 components to plan, and (2) the auto manufacturers' delivery programs are not fixed, even in the first week. But the spread-sheet software takes so long to set up and run, since it was not at all designed for this type of application, that the planners can't run complete updates more frequently than once a month. Between two updates, they spend a lot of time talking on the phone and sending e-mails to suppliers.

In addition, being unable to duplicate MRP logic on a spread sheet, they programmed a simple order point for reordering components. Since the system doesn't manage dates but just monthly quantities, there are a lot of shortages, a lot of expediting, and a lot of stress.

**Second example: an electrical equipment manufacturer.** This company, justly celebrated for its excellent Lean application, decided to stop MRP because « you don't need it with Lean ». Their ERP software was an excellent package widely used in the US and in Europe. The company wanted to have "a system driven by customer orders, not driven by a forecast".

Their production lead times having been reduced to one day, the company set up a Kanban system with suppliers, on the basis of a blanket order based on last year's consumption. The « existing suppliers already know our business seasonalities...so they know what is coming. » Demand spikes are handled by issuing temporary Kanban cards, and a large customer order will be delivered in a longer-than-usual lead time.

However, some time later, operational and financial results deteriorated. According to the new General Manager, "There's no planning system, but there's a lot of inventory." The solution envisaged has two parts: (1) create a Sales and Operating Plan (S&OP), and (2) start up an MRP system with simple software. The new management is still opposed however to having a Master Production Schedule (MPS), because "the forecast is always wrong, and you always end up with inventory."

**Third example: a manufacturer of large mechanical equipment.** Another Lean champion, having implemented the detailed principles of the Toyota Production System, this company also has a good medium-sized ERP software package but doesn't use it for requirements planning or for any other planning function.

Only design bills of material are in the system. Each month the management gets together, in a mixed S&OP – MPS meeting, to decide on the next month's operations. Components are purchased based on historical consumption, but the most important ones are managed manually, with inventory of 30 to 60 days according to the type of component.

"Our suppliers don't want the detail, because the planning coming out of our system is so bad," explained a manager.

\* \* \*

What lessons can be drawn from these three examples? Here are some suggestions:

1. The ERP system can be stopped, but a company still has to do MRP, done way or another, well done or badly.
2. The ERP software packages have eclipsed MRP, as well as the idea of "Class A excellence".



3. Less MRP does not mean less inventory.
4. Lean shortens lead times, permitting a slimmer MRP system, and increases the importance of Sales and Operations Planning (S&OP).
5. The technologies for Anticipation (MRP), for Acceleration (Lean) and for Direction (S&OP), should not be confused with the ERP software packages supposed to support them.
6. Demand a software package for MRP II which is understandable, robust and less expensive. When users have to "figure out a way around" the software to be able to produce or to deliver the customer, things have become too complex.