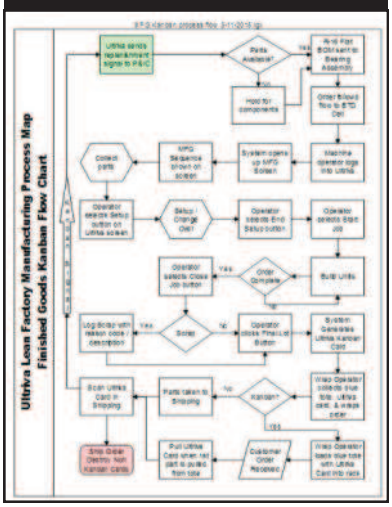
Continuous Improvement News from Morehead, KY - by Ernie Robinson

Example of Ultriva Labeled product for Kanban



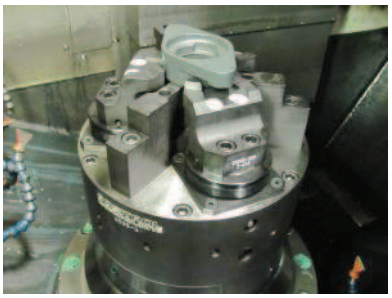
Morehead Launches Ultriva FG Kanban

What do you get when you combine the Ultriva Lean Factory Manufacturing (LFM) module, Point of Manufacturing Shipping, and Build To Demand? Morehead is confident that you get a RDSL and availability improvement. In an effort to prove this very fact, Morehead selected nine (9) different finished goods components, all produced by the same build to demand cell, as part of the April Ultriva LFM launch. Mike Madigan (Perfect Execution Manager), Kathryn Hamilton (Pull Systems Process Manager), and Paul DeBord (Manufacturing Engineer) recently spent three weeks nailing down the requirements necessary to support the launch of the Ultriva LFM. During this time the team met with project support members such as Jan Davis, David Chasteen, Josh Vice, Paula Baldridge, Ernie Robinson, Kannan Narayanan, and a host of others to map and document processes and system interactions.


Kanban Rack with labels ready for implementation

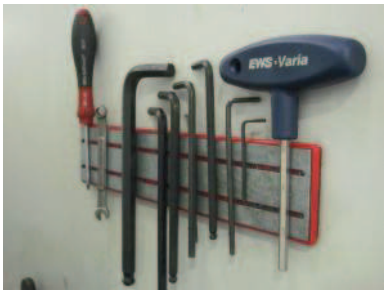
Why is Morehead pursuing the Ultriva Lean Factory Manufacturing module? SPEED is the simple answer. Currently, when customers place orders for units, there is a group of interactive steps that occur in harmony that is virtually invisible to the customer. These steps include order receipt, order fulfillment, and component replenishment. In today's world this process consumes approximately 6 days from customer shipment until the unit purchased is back on the shelf at Florence. By holding the parts in a Kanban environment controlled by Ultriva at Morehead, shipment and replenishment occur within a 24 hour window. Pictured to the left is the process flow developed by the team to depict how the system will work when launched.

Prototype Chuck Development




Operator Training

Working with Positrol, Morehead Engineering Manager Randy Bumgardner and Manufacturing Engineer Paul DeBord developed a new chuck design that eliminates the need for operators to hammer parts against the chuck stops. For 30 years Morehead operators have been required to tap flange block castings with a rubber hammer down onto the positive stops of the chuck jaws. This was due to the three point squeeze characteristics of flange block chucks. Regardless of the housing size, operators had to manually seat the parts prior to starting the machining cycle. These days will soon be at an end as the new Positrol chuck, utilizing cam technology creates downward force on the casting, firmly seating the part against the positive stops and eliminating the need for operators to hammer parts into place. While this change helps resolve an age old operator ergonomic issue, it also addresses a quality issue related to housing thickness variation. Because the overall height is controlled by the location of the bearing in the machined housing, having a process that assures that 100% of the castings are mechanically seated against the positive stop prevents issues with thick and thin housings. Another significant improvement is that the design of the tooling allows for the use of live tooling to drill and tap the lube fitting holes and drill the nameplate holes with out removing the part from the chuck. This eliminated double handling of the parts by the operator and eliminated the need for a VMC in the cell. Other benefits include: Bore Roundness improvement, Housing Torque consistency, Mounting Hole variation reduction, and Operator Set-up Tooling Reduction.




New - Fixed Holding Method


Old - Spring Loaded Holding


Need for the VMC is Eliminated