The Return of the Paperless Manufacturing Movement

BY LUIGI DE BERNARDINI | TUE NOV 17 2015

When I think about the reduction of paper use in production—the so-called "paperless manufacturing"—I don't feel that it is particularly innovative. I've been hearing about this for 15 years and I find it to be a subject already managed and solved in most modern companies. But recently I came across a few new projects aimed at the reduction of paperwork in manufacturing processes, so I started looking into it again with a more curious eye as to what happens in many plants.

I discovered that, although it has been discussed frequently, paperless manufacturing is far from reality for many manufacturers. Paper documents continue to be prominent actors in the production process and an important part of organizational flows. One of the key reasons for this is operator resistance to the exclusive use of electronic information. Cultural background and age are two of the primary factors. As a result, I believe the transformation to paperless manufacturing will only completely come about as a new workforce of digital

natives populates the industry.

But the move toward paperless manufacturing needs to start now as a strategic corporate initiative. Why? Because any information transferred using a paper document is a potential snag to the digitization of the supply chain required by Smart Manufacturing.

The original goal of paperless manufacturing was to reduce the costs associated with printing documents or the cost of manually transferring information from one system to another.Today, however, the primary goal is to enable the real-time transfer of information between different systems from the first supplier of raw materials to the final end user. In this context, paper documents are a clear impediment; at the very least they slow down the process.

It is no longer sufficient to have systems that generate, store, and manage digital representations of what was originally stored in paper form. Instead, it is necessary to focus on data contained in each document and how they are involved in the transfer of necessary information to ensure effective and efficient production.

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Today's paperless manufacturing projects are now more complex and extensive. As a result, the return on investment associated with them is not only related to the reduction of space required to store documents or the time it takes to find them, but by distinct gains in competitiveness, flexibility, and reactivity.

Addressing a digitizing process that involves the whole supply chain can also help to upgrade or transform a business model, creating opportunities for service and profit otherwise not attainable.

Perhaps this is why such a topic, which has already been widely discussed, is returning to the top of the priorities list for many companies.The difference today is that paperless manufacturing can no longer be managed as a single project, but should be integrated in a holistic approach to the management and efficiency of production, taking into account the integration of all systems involved.

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