



How Modular Workbenches Boost Manufacturing Flexibility

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Flexibility

It's anticipated that over the next decade manufacturing plants are going to have to become much more flexible to meet the challenges of a shift from an era of mass production to mass customization.(1) Electronic products are updated with such frequency that modern manufacturers need to be able to produce smaller batches of a greater variety. This means that workbenches need to be as flexible as possible to allow a wider range of tasks to be performed; therefore, they need to be customizable.

Modular workbenches are more customizable

Modular workbenches are designed to be easily adjusted to suit the requirements of any particular task. They incorporate a variety of modules, such as plastic bins, shelving and tool racks, to enable workers to easily reach components and perform their jobs comfortably.(2) Modular furniture also maximise the use of space, with bins and shelving stored above and below a desktop, crucial in any manufacturing environment where space is limited.

Modular designs are ergonomic

Modular design also encompasses workbench ergonomics because it enables the worker to be able to perform at maximum efficiency whilst placing the least strain and discomfort on their bodies. Consequently, modular workbenches can lower the risk of injury, maximize productivity and increase profits. The flexibility of a modular workbench also means that they can also be used in a variety of different work flow situations: they can be placed in lines for conveyer style production process or grouped together into cells for easier communication.(3)

The flexibility that modular workbenches provide helps maximize the ability of your manufacturing plant to adjust to a wide variety of production tasks.

Enhance the flexibility of the entire plant

Using the same design of modular workbench throughout different departments, such as production, testing and dispatch, means they can be swapped around and the modules changed to respond to workflow situations. This also means you can use the same inventory of plastic bins, shelving and task light attachments throughout the facility. Using the same equipment throughout your plant is aesthetically appealing, makes the maximum use of your equipment inventory and makes it easier for workers to adjust to different departments.(4)

Preparing for the era of mass customization

Over the next decade many changes are anticipated in electronics manufacturing, with ever shortening product lifecycles and increasing demands for greater varieties, rather than settling for those mass produced.(5) This means manufacturing plants need to be flexible in order to respond to the demand for a wider variety of different products, whilst keeping costs down to mass production levels. Modular workbenches provide this flexibility and maximize the range of tasks that can be performed by both individual workers and your entire manufacturing plant as a whole.

References

- 1) www.mel.nist.gov/msidlibrary/doc/flexms.pdf
- 2) http://smt.pennnet.com/Articles/Article_Display.cfm?ARTICLE_ID=248554&p=35&cat=HMST
- 3) <http://www.mrotoday.com/mro/archives/exclusives/ApproachTheBench.htm>
- 4) http://smt.pennnet.com/Articles/Article_Display.cfm?ARTICLE_ID=248554&p=35&cat=HMST
- 5) www.mel.nist.gov/msidlibrary/doc/flexms.pdf

