AutoStore

Low.
Medium.
High.

Which level of warehouse automation is right for your operation?

Finding the Right Level of Automation

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Have you heard or thought, “We would like to explore LOW, MEDIUM, and HIGH automation solutions for a particular warehouse design”?

This is a common scenario when companies are considering varying levels of mechanization for their operation. Having a stepped approach seems logical… but why is it that, when presented with three options, the middle/medium offering is chosen more often than not?

Is this the right approach or could you be unintentionally steering yourself towards wrong technologies?

To better understand what LOW, MEDIUM, and HIGH automation applications entail, let’s take a closer look at each:

LOW AUTOMATION

The **LOW** automation solution is a labor dependent operation with entry level assisted picking technologies. These include tools such as Handheld Scanners, Voice Picking, Pick-to-Light, and Order Picking Trucks.

They are relatively quick to adopt and easy to change if needed. These technologies are commonplace for companies evolving from a previously basic operation. Companies will find these solutions are still highly dependent on human labor for order fulfillment.

MEDIUM AUTOMATION

The **MEDIUM** solution brings in conveyance, sortation, pick modules, AMR’s, etc. and is often the option requiring the most dedication of resources because it is not fully reliant on labor NOR automation to run the show.

Designs are a coordination of different material handling methods dependent upon each other to run efficiently. Depending on the scope, it can be relatively quick to implement (less than 6 months) or extend beyond a year for larger implementations. Installed systems tend to be fixed and can be challenging to scale and change over time. While automation completes a portion of the tasks, order fulfillment is still heavily dependent on human labor.

HIGH AUTOMATION

The **HIGH** automation option minimizes labor as much as possible and is reliant upon robotics, AS/RS, and other integrated technologies to have strong up-times. A turnkey operation can sometimes take a year or more to implement and go-live. Considerable upfront design and engineering efforts are to be expected but require minimal resources once up and running.

Highly automated solutions are relatively permanent but tend to be flexible and quick to scale. Solutions offering HIGH automation typically involve robots taking over most labor needed to complete tasks. While human labor is still needed on a much smaller scale, highly redundant tasks and strenuous operations are minimized allowing operators to perform more value-added services.

Out of the three options presented above, the medium solution may seem to be the most risk averse. The client is investing in neither too much nor too little automation. To them, it may appear to be a safe-play middle ground offering that will deliver incremental gains in efficiency, throughput, and labor.

Unfortunately, what clients do not account for is the complexity of implementing a solution that is reliant upon both manual and automated elements to run efficiently. If one component fails to operate as expected, the whole operation suffers.

Another unforeseen is the high amount of preventative maintenance required to maintain systems with more than one single-point-of-failure. Permanent half-baked solutions can lead to a lifetime of perpetual re-designs and tweaks to "get it right".

With the continued explosion of ecommerce and the emerging trends in micro-fulfillment, distribution centers are migrating closer and closer to the end consumer. Robotics and AS/RS will play a crucial role, enabling the storage density, efficiencies, and speed-to-market that clients seek to achieve. Priorities on safety and quality of work life will call for less labor-intensive processes, helping to further justify capital expenditures for automated systems.

Although these highly automated solutions are the way of the future, it all comes down to asking the right questions and supplying sufficient data to perform proper analysis.

It is important to choose a System Integrator or Consultant that takes an agnostic approach, recommending the BEST technologies and solution set for your unique operation… not a generic LOW, MEDIUM, and HIGH offering.

At AutoStore, we partner with the top System Integrators and Consultants in the world to ensure our solution is correctly applied. We've built our reputation on reliability, with a 99.6% uptime which has propelled an installation base of over 500 systems around the world.

If you would like learn more about AutoStore and our partners, please visit us at autostoresystem.com to find out if Cube Storage Automation is right for you!

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