Retrofitting: The 5 Benefits of Improving Your Manufacturing Process

Like the Great Wall of China, industrial machinery is built to last. In fact, facilities continue to depend on production equipment that’s quite possibly decades old. It’s safe to say legacy equipment is deeply rooted in the manufacturing world.

Yet no matter how robust your equipment is, without upgrading (or replacing) it with new capabilities it will quickly fall behind your state-of-the-art competitors. Fortunately, to reap the benefits of new technology, it’s not necessary to “clear the floor” and replace your equipment from the ground up. Retrofitting equipment is a way to save on capital expenditures while benefitting from new technologies. This is good news, particularly for small and medium companies who are unlikely to be able to afford a complete overhaul with new equipment.

From adding a connected sensor to a motor to replacing older components with new, more advanced equipment, to integrating robotics onto the established line – retrofitting is a great way to dive into the world of automation.

“You can't allow tradition to get in the way of innovation. There’s a need to respect the past, but it’s a mistake to revere your past.” - Bob Iger, Chief Executive Officer, Walt Disney Company

The future is here and it’s moving fast! Automation and technological innovation are in a constant state of evolution. It can be hard to stay abreast of all the new innovations that could give your company a competitive edge. The first step to any retrofit project is consulting with knowledgeable integration partners such as those at Delta Technology. They will guide you through the process by evaluating your present system and giving you an inside look and hands-on experience with the latest technologies. Even if you start small by retrofitting legacy equipment, when you do need to add machines, the knowledge you gain from the retrofit will help you assess new equipment more effectively.
Implementing a cutting-edge automation system (in full, or partial) can deliver exceptional speed and precision, leading to reduced cycle times, increased production volume, and less waste or rework. While the right combination of innovative solutions can be tailored to exact application requirements, there will always be a time when parts become obsolete, machines break down or process needs change.

Before spending thousands on new equipment, “Can this be retrofitted?” should always be the first question considered.

Just like visiting the doctor on a regular basis, developing a strong working relationship with your integration partner is your best practice to effectively manage the life cycle of your automation system to ensure both maximum performance and Return on Investment over the life of the asset.

Read How Retrofitting Can Bring Benefits to Your Manufacturing Floor:

1. **Connect with Industry 4.0**

   With smart sensors the advantages of Industry 4.0 are vast. Connected factories can be made more flexible, be monitored remotely, offer an improved workplace for staff, facilitate predictive analytics and more. Monitoring equipment’s efficiency and using advanced diagnostics means machinery will be less likely to cause unplanned downtime. By adding sensors to key functional components and connecting back to simple hardware with a web-based interface, it’s possible to gain real value from data you didn’t think you could get.

2. **Adapt for New or Changed Products**

   With today’s everchanging consumer tastes having the opportunity to retrofit your manufacturing equipment with little or no disruption is a viable option and opens the door to “changing up” current products or introducing new ones to their line.
3. Improve Overall Equipment Effectiveness

Overall Equipment Effectiveness is another benefit of retrofitting a machine with modern components, resulting in improved quality, productivity and machine availability. This opens doors to many untapped possibilities. Among these are improved cycle time, previously unrealized continuous improvement process enhancements and better safety features. When considering overall production efficiency, implementing analytics is vital to understanding what is going on with your machines.

4. Improve Safety

Innovation has brought many improvements to safety technology. With that said, government safety requirements have become more strict and older equipment may not comply with all of today’s regulations. To avoid unnecessary downtime (or a shutdown) upgrading to fit current safety standards is imperative. Not to mention, an aging machine can cause environmental and operational hazards such as oil leaks, loose wiring or components that fail.

5. Save Energy

Implementing connectivity can reduce the energy consumption of older equipment allowing access to real-time data to see how the assembly line is running. Manufacturers can use this real-time data to find areas where equipment is not running at maximum capacity or is consuming more energy than required.

About Delta Technology:

Delta Technology has been the integrator and the manufacturers’ strategic partner of choice for robotics, automation, and custom manufacturing solutions since 1997. We are proud to employ Industry 4.0 methodologies to creatively and expertly design, engineer, and build custom industrial automation solutions to solve the most complex manufacturing challenges.

We partner with our customers to clearly identify their challenges and understand their goals. Based on our findings and our extensive experience in manufacturing, we design and engineer the best custom solutions for them.

We specialize in:

- Design, engineering, fabrication, and assembly of custom industrial automation and robotics solutions
- Cutting-edge and modern lean automation and lean robotics
- Machine-control software development
- Integration of automation equipment
- Vision-guided robotics, inspection systems, and adaptive controls