

LASER FOCUSED ON FACILITY UPGRADES

STREAMLINE YOUR NEXT PROJECT WITH 3D SCANNING AND BUILDING INFORMATION MODELING (BIM)

Upgrades, retrofits, repairs and other projects can involve downtime and be a headache to manage – especially if you encounter costly unknowns or miscalculations. At Horizon Systems, we're experts at utilizing 3D scanning and modeling to ensure project success. By modeling projects first, retrofits and equipment change outs become seamless saving you time and money. Once we create a Building Information Model (BIM) of your process system within your facility, we'll always be able to view and modify your process system virtually, so it can constantly evolve with your business needs.



PRE-CONSTRUCTION MODELING

FINISHED PROJECT

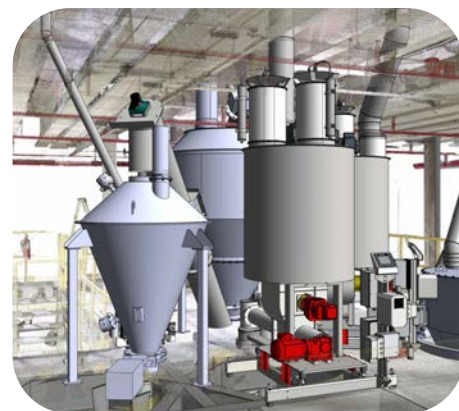
COLLECTING AS-BUILT DATA USING LIDAR SCANNING

When it comes to existing process facilities, creating an accurate plan to work from can be difficult. While some schematics or drawings may exist, they're often out-of-date, inaccurate or incomplete – usually lacking elements added after the initial design phase, such as the final location of utilities, steel, access platforms or surrounding equipment.

Our engineers are experts at employing state-of-the-art LiDAR scanning technology to capture highly accurate data clouds representing as-built facilities. The result is a data cloud of every point within the facility **accurate to within ± 0.079 inches.**

These scans usually only take a day or two to complete and can be scheduled so as not to interrupt workflow.

After a scan, engineers take this data and refine it to ensure accuracy, then create a precise 3D version of your existing facility or process line that engineers can manipulate to plan your next project.



MODEL VIEW

FINDING EFFICIENCY BY MANIPULATING BUILDING INFORMATION MODELS

By working with a 3D model of your facility first, engineers can visualize how new equipment and systems will fit into the facilities, ensuring compatibility and functionality while minimizing disruption. It also allows us to use our pneumatic conveying and ingredient handling expertise to easily optimize facility design and layout, including completing interference checks, pipe routing and space planning.

When necessary, our engineers can coordinate with our manufacturing facilities to customize equipment and structures to best suit your facility. Project managers can also coordinate with other suppliers and our own installation and field services teams to ensure a smooth and seamless process once the project starts.

BENEFITS OF TAKING A BIM-FIRST APPROACH

OPTIMIZE WORKFLOW

Working through 3D Models, Horizon Systems engineers can apply their pneumatic transfer expertise to ensure efficient convey line routing with first time success. It also provides insights into the best way to configure multiple components to maximize efficiency.

AVOID COSTLY UNKNOWNNS

Three-Dimensional models allow us to visualize demolition, construction and installation phases to avoid costly surprises during execution – like needing to reroute a convey line, adding an extra elbow or moving utilities or equipment. We know that equipment will fit – and even how it will move through tight spaces in a facility – long in advance of it arriving on site.

REDUCE DOWNTIME

By completing a virtual upgrade or change out first, engineers can optimize the project timeline and coordinate installation with all stakeholders to minimize costly downtime. We can minimize disruption to your facility, accurately coordinate changes with other suppliers, plan the configuration

of the new equipment, and even visualize how equipment should move through a facility to its intended space.

PREPARE FOR FUTURE PROJECTS

Horizon Systems will save your original scans, models and all relevant information for future projects. As your process changes or evolves, we're able to keep up with you virtually to ensure quick, efficient and cost-effective repairs, upgrades and change outs in the future. Completing work through an engineering partner like Horizon Systems ensures you always have up-to-date data ready to plan your next move.

CASE STUDY: COOLER UPGRADE

Tasked with replacing a cooler mixer and increasing production rates, we were able to capture an as-built layout, model and plan equipment removal and installation, and complete the project ahead of schedule. Watch our video to see the process in action.



GET STARTED

Horizon Systems experts have been engineering forward-thinking process systems for more than 40 years. Contact a representative today to discuss how we can streamline your next project.

Get started horizonsystemsinc.com/contact



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