

3 Ways 3-D  
Computer-Aided  
Design (CAD)  
Drawings Can  
Help You

*Visualize all of  
your material  
handling systems*





Whether you are in the warehouse and distribution, food and beverage, freight and parcel or automotive industry, a well-designed material handling system is crucial to your operation's productivity and space efficiency. If you are looking to install a new material handling system or to upgrade/expand your current system, a detailed 3-D diagram of your planned facility layout and equipment integration can be beneficial to moving your design and installation process along.

Trying to visualize all of your material handling systems, storage facilities and other production units on your shop floor in a flat, 2-dimensional way, can be confusing. 3-D drawings generated by computer-aided design software can help you identify the solutions you are looking for.

Three  
benefits of  
using 3-D drawings  
when planning a  
material handling  
solution include:



### **1. They provide non-technical stakeholders with a clear picture**

3-D drawings will help the non-technically minded individuals on your team get an idea of what the system will look like and help them visualize the project in its entirety. They will also be able to see individual components, features and aspects of the whole installation. 3-D drawings are incredibly clear. They can be used by all stakeholders to envisage changes made in real-time and improve the efficiency of the material handling system on the go.

Project managers can use the 3-D drawings to accurately plan the installation and integration of your material handling equipment. They will have all the data at their fingertips to help them:

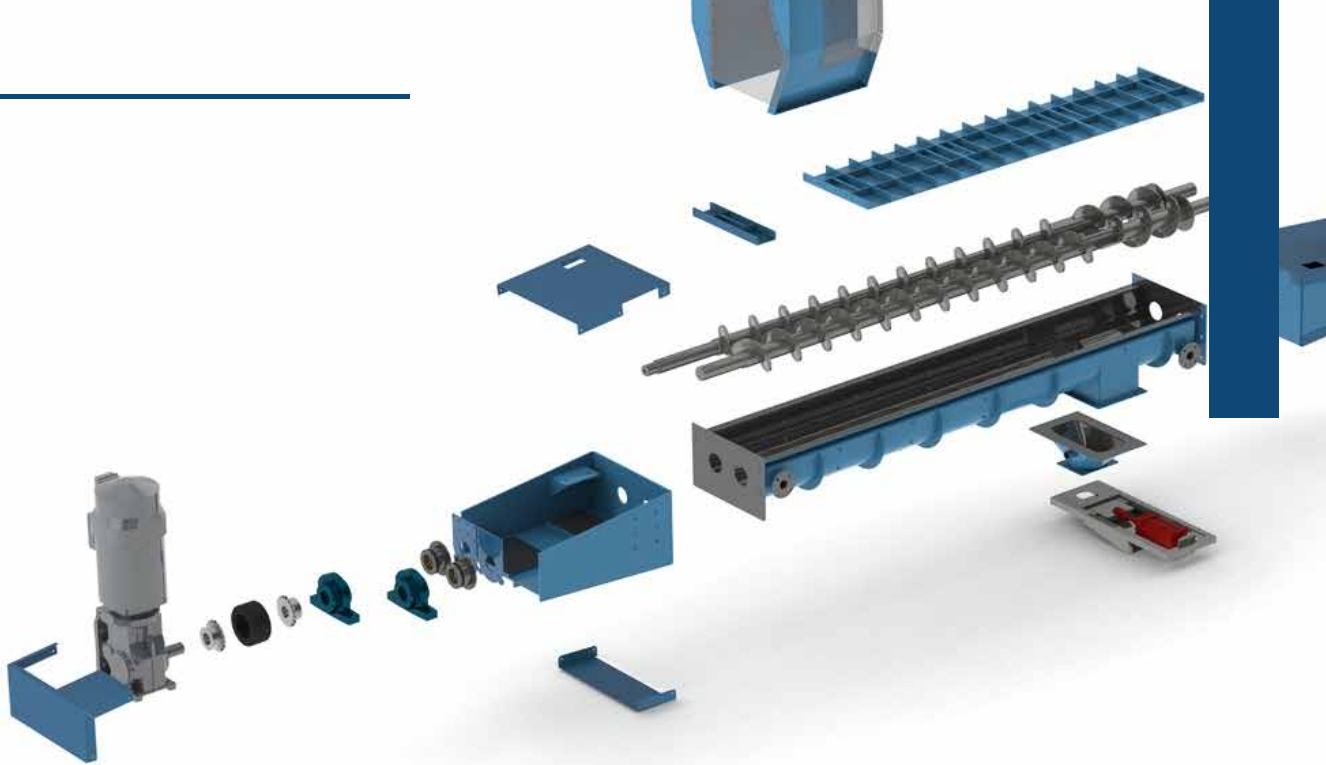
- Prepare layout plans for the entire system
- Generate drawings for permit submission
- Establish installation timelines and set deadlines
- Create an accurate budget for the project
- Plan material and equipment purchasing needs





## 2. They give a better indication of interferences and clearances

Adding a third dimension to a 2-D drawing enables the design engineer to visualize physical obstacles in the way of the proposed handling system and plan accordingly. It also gives them a better view of clearances between components and the surrounding structures. Interferences such as heat and ventilation ducts, electrical wiring and building structures can also be easily identified and corrective changes to the plans can be implemented. All of this is done by using computer aided design before the first wrench is even lifted or the first screw turned, avoiding costly mistakes and delays once the installation begins.



### **3. They can be converted to actual animation or ‘fly throughs’ for better visualization**

Using advanced CAD software techniques, 3-D drawings can be optimized and animated into virtual tours or ‘fly throughs’, to deliver a greater visual understanding of the proposed installation. This brings the project to life and enables design engineers to simulate different scenarios before making a major commitment to implementation. Animation can also help the engineering team identify the impact design changes will have on the overall efficiency and throughput of your material handling system. A well presented animated 3-D model of your proposed material handling solution will also boost stakeholder confidence in the sustainability of the project.



3-D CAD drawings deliver detailed, easy to understand overall views of your facility. They are an ideal way to detect problems, identify inefficiencies and plan the ideal solutions to your material handling system needs.

## **Discover innovative material handling solutions for your facility with 3-D drawings**

Using 3-D modeling to develop an execution plan for a material handling system is the beginning of a successful project. Mainway's qualified team of material handling system experts can help you visualize solutions for your facility to increase throughput and minimize operational expenses. With our custom 3-D CAD design tools, we can deliver detailed floor plans, 3-D elevation perspectives and installation diagrams.





Get a fresh, full 3-D view of your facility and discover what our team of dedicated engineers can do for your material handling designs. We're here to help you increase the productivity of your operations. **Contact us today.**

## *Our Vision Drives Innovation*

Since 1988, Mainway has been providing clients with an unprecedented standard of excellence in conveyor design, material handling and systems integration. Our experienced team delivers leading-edge customizable solutions, embracing technology advancements to produce exceptional end results.

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