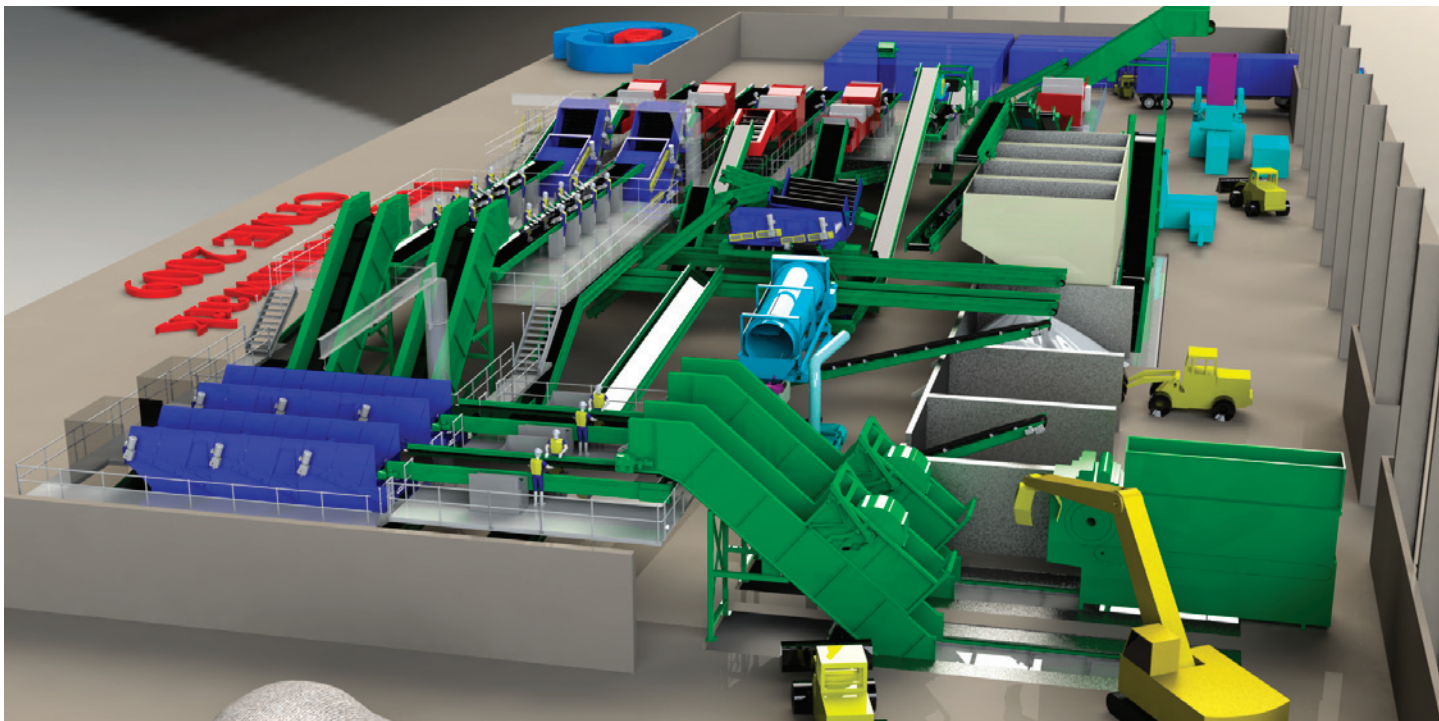


# CP MANUFACTURING, INC.

## Streamlining the development of recycling facilities with SolidWorks



Ever wonder what happens to recyclables—the glass jars, plastic bottles, aluminum cans, newspaper, etc.—that you place at your curb in a single plastic recycling container? All of the different kinds of materials need to be separated into individual streams to be recycled. Sophisticated equipment at the recycling plant puts the commingled recyclables through a series of automated processes that separate the material by type, and chances are good that CP Manufacturing, Inc. designed and manufactured the facility that performs this function.

Since 1977, CP Manufacturing has built more than 400 Material Recovery Facilities worldwide. The company is a leading innovator in the waste management and recycling equipment industry, and is known for its superior engineering and advanced disc-screen separation technology. As demand for CP's custom-engineered plants and equipment grew, the need to shorten delivery lead times became of paramount importance, according to CP's CAD Development Manager Adrián Velázquez.

"We had used AutoCAD® 2D design tools, but as our orders mounted, we needed to move to 3D to accelerate development," Velázquez explains. "As a company, we had to shorten our design-to-operation cycle to continue to grow. A 3D platform would provide the design automation, reuse, and configurability efficiencies required to meet our goals."

CP Manufacturing decided to implement SolidWorks® solutions. The recycling equipment manufacturer acquired SolidWorks Professional and SolidWorks Premium design and analysis software, SolidWorks Enterprise PDM product data management software, and 3DVIA Composer™ technical communications software.

"Our Sales Department actually purchased SolidWorks first, to improve their proposal visuals, and suggested that we use SolidWorks in Engineering," Velázquez recalls. "I had some experience with SolidWorks as a student and knew that it was easy to use and provided an integrated suite of design and engineering solutions. It's also highly configurable, so we can tailor the software to do what we want it to rather than adjust our work to the application's capabilities."

*Using SolidWorks design, analysis, product data management, and technical communications solutions, CP Manufacturing has accelerated the development and improved the quality of its recycling plants.*

### Challenge:

Streamline and accelerate the development of recycling plants and equipment.

### Solution:

Implement SolidWorks Professional design, SolidWorks Premium design and analysis, SolidWorks Enterprise PDM product data management, and 3DVIA Composer technical communications software.

### Results:

- Cut design time in half
- Reduced design errors
- Automated workflows
- Realized paperless document management system

## Accelerated design plus better quality

Since implementing SolidWorks software, CP Manufacturing has cut its design cycles in half overall while simultaneously reducing design errors. The company relies on SolidWorks sheet-metal and design configuration capabilities to realize these productivity gains. "SolidWorks has provided us with the ability to configure and set up master models, which allows us to create fast variations for different design elements, such as specific materials, disc patterns, conveyor widths and lengths, or the spacing between discs or rotors," Velázquez says.

"Having all of the models correctly set up in SolidWorks enables us to develop designs more quickly and easily, cutting design time from a couple of weeks to a couple of days," he adds. "With SolidWorks, our designs are also more accurate, which helps us accelerate release to Manufacturing and avoid problems during assembly. We have actually cut down the release cycle from up to two weeks to a day maximum using SolidWorks."

## Automated workflows, paperless document management

Using the SolidWorks Enterprise PDM system, CP Manufacturing has instituted automated workflows, which streamline development, and has eliminated paper from its document management process. CP's SolidWorks administrator, Jason Kerns, uses the SolidWorks Application Programming Interface to automate repetitive, redundant tasks.

"We rolled out SolidWorks Enterprise PDM to facilitate design reuse," Kerns notes. "The search tool lets our designers quickly find and reuse parts. We then set up workflows and incorporated other functions, like material control, document control, CNC machining, and other processes that can leverage design data. The automated workflows improved efficiency and shortened release times."

"With SolidWorks Enterprise PDM, our Engineering Department has become 100 percent paperless. We implemented our workflow, had a couple meetings, and decided to use eDrawings® in lieu of paper drawings for review, redlining, and approval, which generates additional savings," Velázquez stresses.

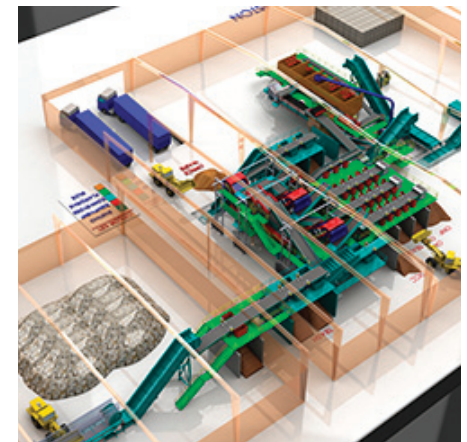
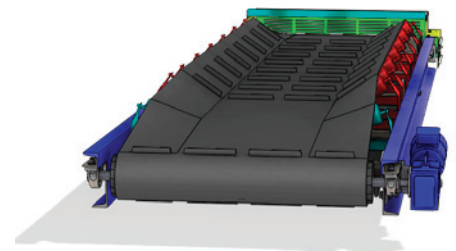
## Seeing is believing

CP Manufacturing added 3DVIA Composer technical communications software to automate production of its user manuals. In addition, the company realized immediate benefits using 3DVIA Composer to create high-quality visuals and animations for sales presentations and customer education.

"3DVIA Composer is a great tool to show how the facility operates," Velázquez points out. "We do a fly-through animation with annotations to show the various parts of the system. When we turn over a project, we provide a 3DVIA Composer animation to show the plant manager and facility employees what happens at every single stage of the separation process. It's fast, informative, and interactive."

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Adrián Velázquez  
CAD Development Manager



SolidWorks Enterprise PDM software enabled CP Manufacturing to realize a paperless document management system, and 3DVIA Composer software allows the company to demonstrate how its facilities operate in stunning detail.



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