

## TIME TO MARKET REDUCED USING CAD CONFIGURATORS

ATS Automation Tooling Systems provides innovative, custom designed manufacturing solutions to many of the world's most successful companies. Founded in 1978, ATS uses its industry-leading knowledge and global capabilities to serve the sophisticated automation system needs of multinational customers in healthcare, computer/electronics, automotive, pharmaceutical and consumer products. ATS employs approximately 3,600 people at 26 manufacturing facilities in Canada, the United States, Europe, Southeast Asia and China.

ATS recently introduced a reconfigurable, modular solution for packaging called FlexsysPAK™. This machine is based on the already successful Supertrak pallet conveyor system which is also a highly flexible and configurable packaging solution. The FlexsysPAK™ system can be applied in packaging operations from blister form, fill and seal to cartoning and case packing. The solution is ideally suited for a wide variety of tasks from assembly and dispense to kitting and packaging. ATS was able to bring this machine to market quickly by using 3D modeling configurators made available by a number of component manufacturers. Mike Baljak, CAD Support Specialist for the ATS mechanical design group in Cambridge, Ontario, is a user of the 3D modeling configurators available through many of the component manufacturers' web sites. "Using the configurators has reduced design effort by minimizing the time used to make 3D models of purchased parts," explains Baljak. "Previously, modeling a part not available in our library would require finding a catalogue – either on-line or hard copy – then modeling the part from the dimensions provided, increasing the possibility of modeling errors and rework as a consequence. Now, it's as simple as logging into either 3D Content Central where you have direct access to a number of supplier sites or directly to the supplier site, inputting the parameters, and downloading the 3D model. It makes designing more efficient which saves time and money, and allows time to be focused on more important aspects of the design, increasing the quality of designs."

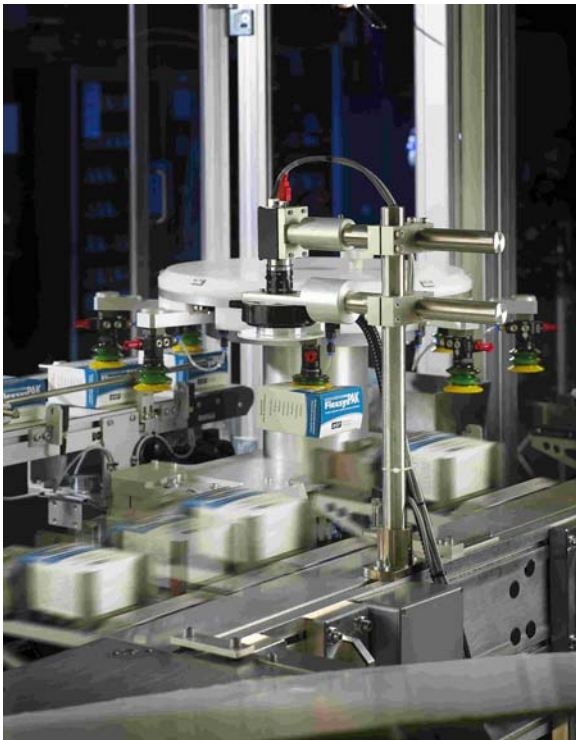
MISUMI USA is one of the companies that provide 2D drawings and 3D CAD standard components for assembly automation. Many of the MISUMI components specified and purchased for the build of FlexsysPAK™ were accessed through the MISUMI web site, [www.misumiusa.com](http://www.misumiusa.com), saving the ATS mechanical designers the time and effort of drawing the components. By accessing the MISUMI Configurator, a designer is able to input the part number; reconfigure the part; and download the native 3D file. In most cases, this whole process takes considerably less time than what is required to draw the components.

MISUMI USA provides standard components for assembly automation that can be parametrically configured to the precise specifications required for the unique assembly being designed. When the part design is completed, the designer can download the native CAD file of the component directly into the assembly model. The component becomes a purchased item which is added to the bill of material. This process saves a great deal of time that the designer can use for the design of components unique to the machine or assembly being designed.

The MISUMI components are configurable within the constraints offered by the MISUMI CAD Configurator. The designer is presented with the available options for each component. Component material and surface finish can be selected through the part number, while each specification can be selected in 1mm increments. Options are numerous including wrench flats, and the location of the wrench flat, set screw flats, key groove and V groove. The designer no longer has to page through volumes of paper catalogs trying to decide if they can use the components featured. The online configurator features more than 200,000 standard components which they can choose for the unique assembly being designed.

These savings are twofold: first, because part drawings are not required for the purchased components, and second, the in-house machine shop at ATS is no longer taxed to machine the simple components. Instead, machinists can concentrate time and effort on the custom components and assemblies that must be machined in-house.

ATS is not only using MISUMI components but can go online using websites such as 3D Content Central to access the part catalogs provided by other component manufacturers. By standardizing on components available from many component manufacturers ATS is able to reduce the demand on the in-house machine shop and reduce the time required by the design engineer to design simple components. These two economies allow ATS to bring machines to market quickly while reducing cost for their customers.



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