The necessity of energy efficiency

As a manufacturer of systems for product handling and palletization, CSi works for clients, small and large, all over the world. CSi smart palletising is the expert of end-of-line palletising. Based on 50 years’ experience, CSi delivers solutions of highest quality. The company, based in Raamsdonksveer in the Netherlands, has a production facility in Romania. CSi increasingly finds itself facing demands for low-energy solutions.

“For our large clients, energy efficiency is, just like safety, a component of corporate sustainability”, comments Jan Schoenmakers, product owner robotics. “They only buy from companies that have the necessary sustainability certificates. Smaller clients often regard such matters as less important and are mainly motivated by economic factors.”

Low costs, high quality

With the new smart-Pal, CSi has combined energy efficiency and affordability into a single palletizing solution. Marc van Putte, strategic business development: “With our i-Pal we have been marketing a robotic palletizer for years. It’s mostly the robotic component that pushes the sale price up. So that’s why we came up with the idea of designing an alternative without a robot.”

CSi had five suppliers submit tenders for all the technical components. Energy efficiency was one of the selection criteria, along with price, flexibility, worldwide service and support. The Siemens components are optimally harmonized with each other, allowing a high degree of energy efficiency to be achieved.
Siemens provides SIMOTICS S-1FK7 (servomotors), SINAMICS S120 (drives), SIMOTION D (motion control system) and the SIMATIC HMI panel. The SINAMICS servo drives don’t turn generative energy into heat, but feed this back to the network or use it to power other electrical components in the machine. This contributes to a low Total Cost of Ownership.

**Straight forward**

Siemens was closely involved in the whole trajectory from design to demo version.

**“Being innovative, it’s in our blood.”**

An application engineer from Siemens conducted tests in the factory in Romania. Siemens also provided a training and helped CSi to stay realistic. “The smart-Pal is not rocket science”, Ronald Bats, product engineer points out. “It has been designed to be straightforward under the motto: “Keep it simple”. That was sometimes a bit tricky for us in the design phase. We're used to thinking up made-to-measure solutions for clients, whereas the smart-Pal, in fact, needed to be a standard solution. Being innovative is in our blood, but that wasn't what was needed for this project. Every little thing that's added makes a solution more expensive and more complex. Siemens helped us to keep working at a basic level by looking at the project on the basis of costs.”

Raimondo Hooft, account manager at Siemens: “Through good consultation and by making use of the Siemens’ engineering tools, we were able to make an optimally modular product choice that offers the right balance between efficiency and continuity.”

**Launching customer**

CSi found a launching client in the dairy industry, which ordered three smart-Pals. CSi is convinced that many more clients will follow. Van Putte: “Because of the long payback time, a lot of companies in Europe have not yet invested in a palletizing solution. The smart-Pal pays itself back quickly, sometimes even within a few months. It is also an interesting solution for companies that are moving their production to low-wage countries. We test the smart-Pal from top to bottom in our own factory. We then put the entire machine into a shipping container and we only have to unload it at the client's site and plug it in. It is also a simple machine: Most of the servicing can be done by the operators themselves.” Schoenmakers remarks, “You get a compact solution that is constructed entirely from A-components for an attractive price. It can be delivered within eight to ten weeks and we offer worldwide support.”