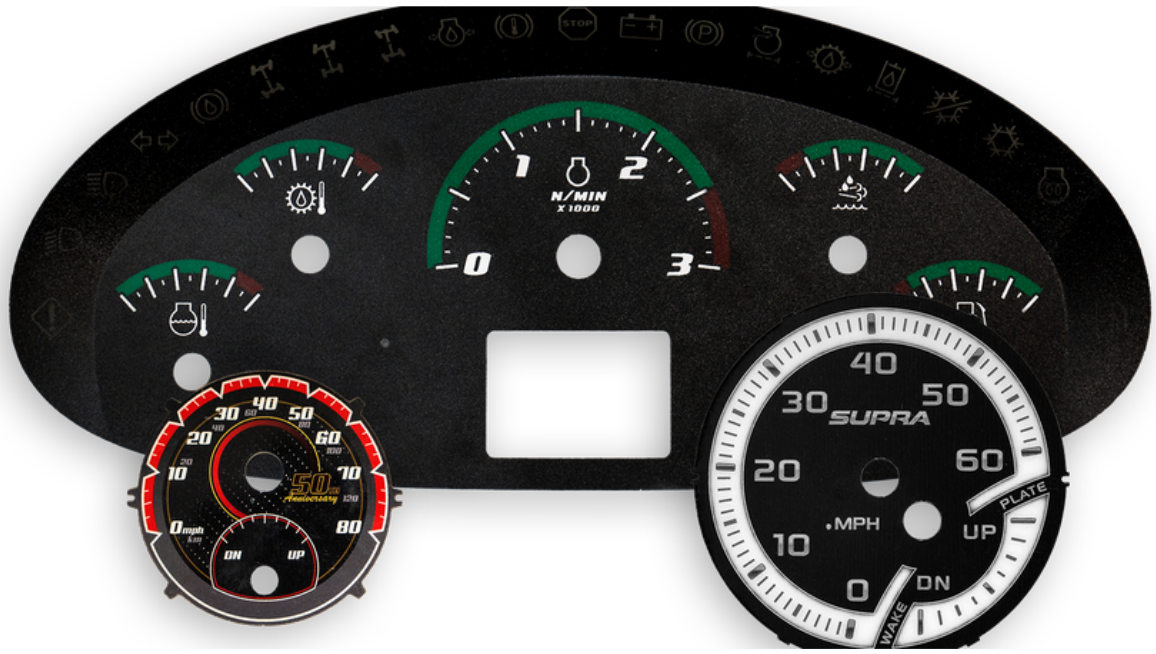
Flipping the script

An Impala simplifies and accelerates printing of user interface products.

Butler Technologies, Inc. of Butler, PA, USA, specializes in printed electronics and user interface products. In a field once dominated by screen printing, digital production is gaining ground. An Impala flatbed printer is pushing this trend.

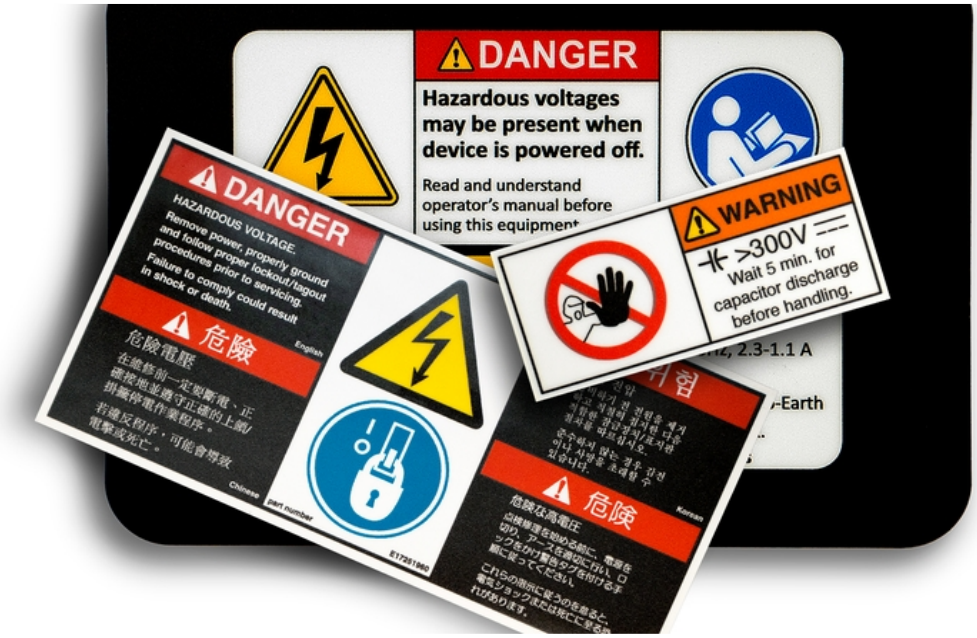


“Our Impala 3 completely flipped the script,” says Anne Feldbauer, Digital Print Lead at Butler Technologies, Inc. Her colleague, Jason Letzelter, is the company's Process Technician. He agrees that efficiency and turnaround times are significantly better. “With the Impala, we can do the same jobs much faster – some of them three times as fast.” The company's previous UV printer had reached end-of-life, its productivity was no longer sufficient, furthermore it could not deliver what customers demanded. Jason explains: “Things have changed; we need a wider range of capabilities, like photo-realistic printing on parts.” Hence the decision to invest in an Impala.

Graphic overlay jobs and label prints

Butler Technologies, Inc. designs and manufactures user interface products, printed electronics and advanced printed technologies such as biometric sensors, flexible heaters and force-sensing resistors. Customers come from various industries, including healthcare

equipment and automotive manufacturing. This is where Impala plays an important role. Anne explains: “The Impala mainly prints graphic overlays for user interfaces as well as labels of all sorts and sizes.” Materials processed include polycarbonate, polyethylene terephthalate, vinyl and acrylic.



Meeting extreme requirements

Anne points out: “Anyone who supplies to automotive will know the extremely stringent requirements involved.” Butler Technologies previously produced automotive gauges and dials by screen printing, which required many screens, all perfectly aligned if the printed result was to be successfully thermoformed. Thermoforming in particular ruled out digital printing – until the Impala arrived. “We were set in our screen-printing ways before purchasing this flatbed printer,” says Anne. The team ran extensive thermoforming tests with the Impala. The swissQprint ink provided the necessary flexibility and passed with excellence. “Now, we produce automotive parts in mass quantities and the digitally printed parts have met with glowing praise,” Jason adds. On top of that, the digital process means a tremendous efficiency gain for the company.

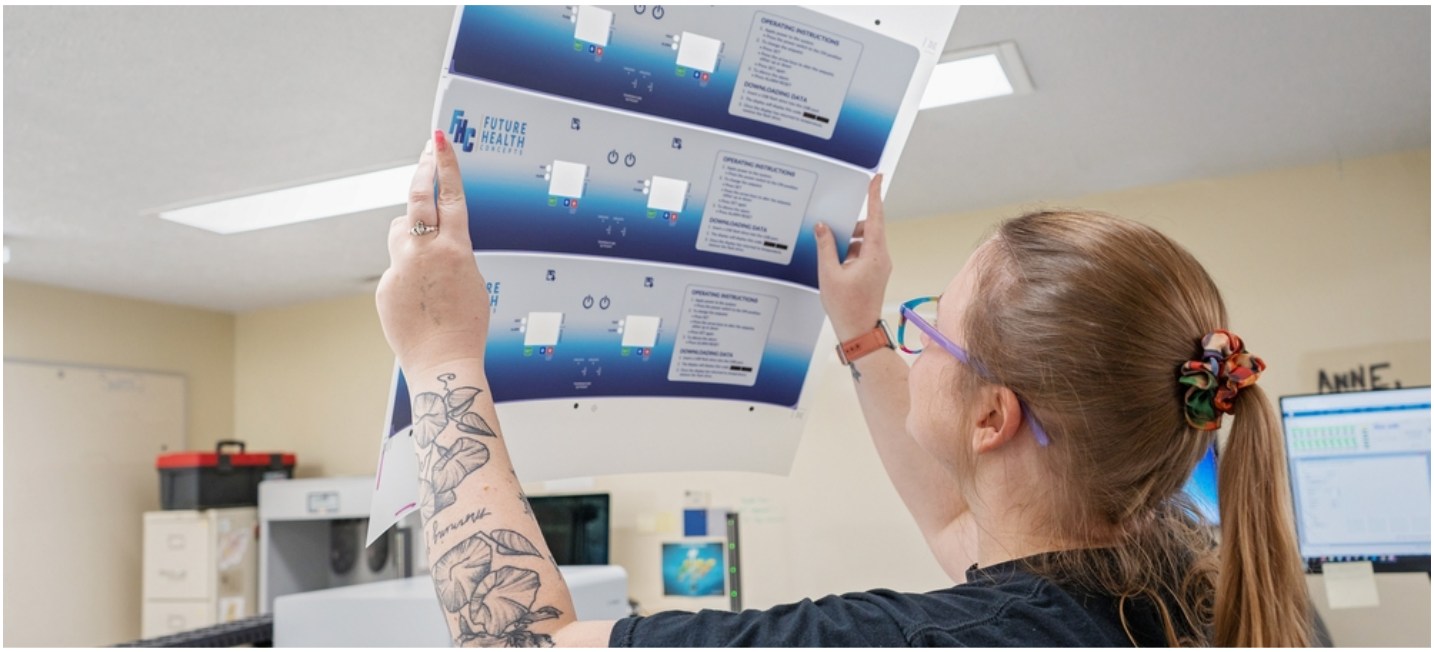
100 percent registration accuracy

Highly accurate registration is crucial to this line of products, and the Impala has two features ensuring just that: Firstly, it can do multilayer printing in one go – layers align 100 percent. Secondly, the unique swissQprint registration pins provide three-point registration of media. Size is immaterial, as the pins can be set accordingly. Thus, the print bed is used to its full width.

Jason stresses how much he appreciates the way the Impala's features all work in harmony and how this interplay sets the machine apart from others. If he had to pick one of his favorite features it would be the registration pins: "The way we can utilize the tandem print mode with them, meeting the tightest tolerances from sheet to sheet, still amazes us."

Color accuracy

Repeatable color accuracy is an additional requirement that the Impala lives up to. Jason remembers: "While our previous system only achieved a ΔE of 4, the Impala faithfully delivers within much smaller deltas." He points out that they had their Impala configured with spot orange to match O21 for labels on safety equipment: "It was no fuss to match the tone, and we never had the same vibrancy before." In addition to the spot color, the Impala also has one of its nine channels equipped with light black. "This is to smooth out transitions with dark gradients as well as to assist with light grey tones," Jason explains.



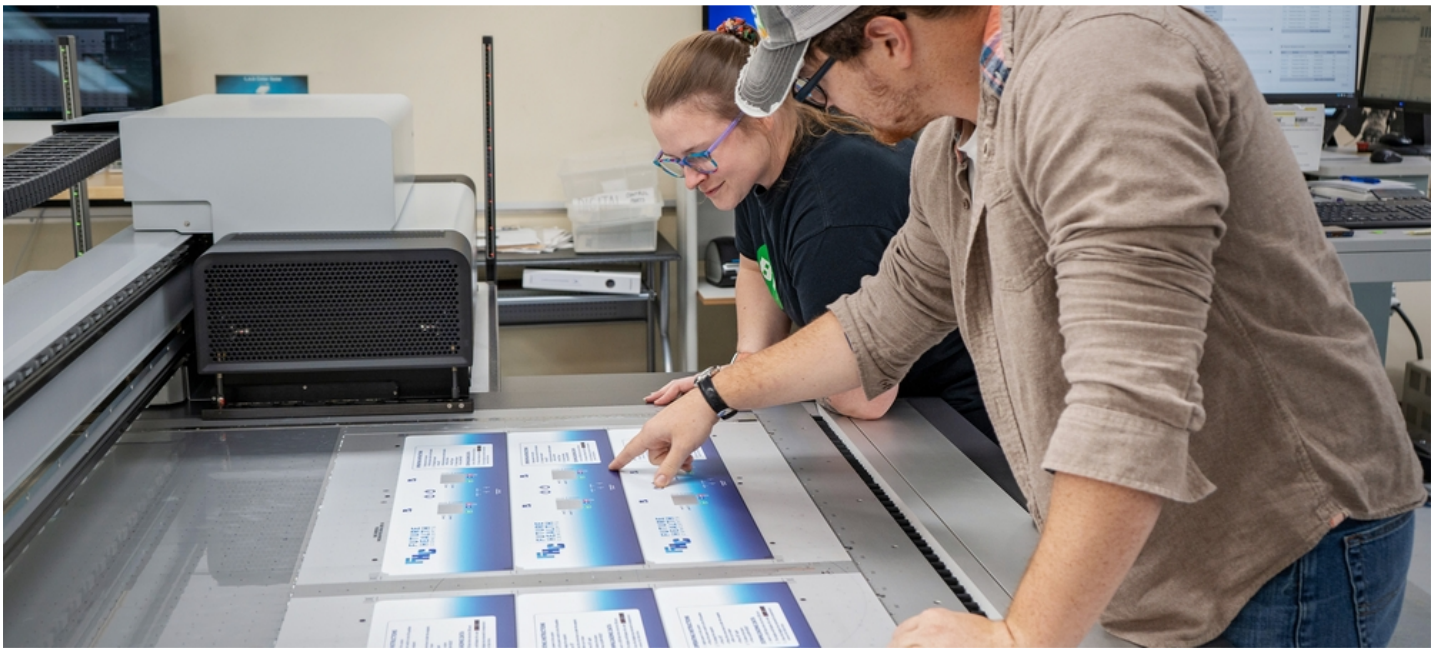
Substantial savings

Apart from a high level of usability that in turn contributes to efficiency, Anne explains that the Impala has helped to save substantial amounts of money: "The ink is less expensive than with our other presses and ink consumption is low." She also knows that the system is power-saving, not only due to LED curing, but also to underpressure-controlled vacuum pumps. Indeed, the printer is certified for its outstanding energy efficiency according to

ISO 20690:2018. In end effect, Anne says: “The Impala has allowed us to be much more competitive in pricing, quality and turnaround times.”

Meeting sustainability goals

The Impala’s energy-efficiency also helps to reach ecological goals defined by the Butler Technologies’ sustainability policy. So do its low maintenance requirements, minimizing the need for spare parts and service calls with their resultant CO2 emissions. Anne confirms: “Other presses have lots of unnecessary down-times, and we cannot afford to be down.” By design, the system is user-friendly and safe in operation. Jason calculates that waste of material and time is down 20 percent compared to the previous UV printer.



Anne and Jason have recommended the Impala to several partner businesses for its consistency and reliability. “This machine never fails to ‘wow’ everyone who sees it.” Also, the Impala has earned a convincing return on investment over its first two years in operation. So convincing, in fact, that Butler Technologies is considering adding a digital print shift and a second swissQprint to cover it.

Company	Butler Technologies, Inc., Butler, PA, USA
Website	www.butlertechnologies.com
Segment	Industrial Printing
Established	1990
Employees	70
Printer	Impala 3
References	Graphic overlays for user interfaces and labels for: First responder and safety equipment Medical devices Industrial controls Automotive manufacturing White goods