

On-demand color-coding helps reduce errors & improve efficiency for Hamilton Sundstrand Testing & Calibration Efforts

CUSTOMER STORY general distribution



For employees in the Metrology department at Hamilton Sundstrand, accuracy is everything. Metrology technicians are responsible for calibrating about 70,000 gauges at a rate of 35,000 gauges a year. Gauges that are, in turn, used to test the accuracy of measurement instruments built by Hamilton Sundstrand for use in many of the world's commercial, corporate and military aircraft.

"Accuracy and traceability is very important for us," says David Coache, manager of Metrology for Hamilton Sundstrand in Windsor Locks CT. "In this business, there's no room for human error. Between the FAA and the Department of Defense who audit our facilities every day, it is important we follow all procedures. If any gauge is found on the shop floor with a sticker that stated it was expired; this would be considered a major finding. The investigation most of the time, would only discover the gauge wasn't expired and it was an error in writing out the sticker. These investigations can be costly and can go up to and include shutting down the line or facility. Shut downs can last days and cost upwards of \$1 million in lost production."

On-Demand Color-Coding Helps Eliminate Human Error for Hamilton Sundstrand Technicians

- One essential function for Metrology department technicians is tracking the compliance testing results of each gauge that comes through its department. By contract, gauges are required to be tested on a predetermined time frame to ensure they are still within the measuring parameters. Those that are measuring even slightly off are then recalibrated. Gauges that come in to the laboratory must be accurately marked with colored labels that clearly identify their usability level: green=accepted; yellow=limited use; red=rejected. Improper labeling and documentation of one gauge can result in potential safety issues and facility shut downs.

QUICK FACTS

Customer:	Hamilton Sundstrand
Product:	VP2020 Digital Color Label Printer
The need:	To create on-demand color labels to accurately identify and label gauges after testing and calibration.
Key Benefit:	The VP2020 allows Hamilton Sundstrand Metrology technicians to simply print out one single color label that identifies key information required by federal regulators to show the accuracy of the instrument for use in building aircraft parts.
Customer Kudos:	"The VP2020 allows us to print color-coded labels that help us clearly identify and trace gauges."
Customer Fact:	Hamilton Sundstrand, located in Windsor Locks, CT., is the global supplier of technologically advanced aerospace industrial products. Its systems can be found in over 90 percent of the world's aircraft.

Before purchasing VP2020 printers, Coache says his facility used two different types of labels: black and white thermal bar code labels for tracking gauges and preprinted red, yellow or green labels on which technicians manually wrote additional information on the label after testing a gauge.

"Before implementing the VP2020s, our human error label rate was running around 5 percent," Coache says. "With techs handling thousands of gauges in a week, there was the potential for numbers to be transposed incorrectly."

Coache says, however, the 5 percent error rate was still too high. The Metrology department took their challenge to the company's homegrown, quality initiative program - ACE or Achieving Competitive Excellence, which looks at workplace challenges and seeks more effective business solutions. Through thorough investigation of other processes and products to determine a best-in-class solution, Metrology technicians learned about the VP2020 printer - a solution that would not only address the 5 percent error rate for labeling but would also give the department other capabilities to streamline their process.

"When we found the VP2020, it was one of the only printers out there doing color labels on a single roll feed - one printer that could print the bar code, corresponding usability color and identifying information for each gauge," Coache says.

Benefits of the VP2020

- **Reduction of labeling errors:** For Hamilton Sundstrand's Metrology department, each of the 20 technician stations has a VP2020, which prints out a single label with all the data and corresponding color-code for every tested gauge. With all pertinent regulatory information now printed on just one label, there is no longer a risk of mislabeling since technicians no longer has to write each label for a gauge. Furthermore, technicians no longer need to hand write any data, ultimately eliminating the potential for human errors in transcription and of errors due to illegible handwriting.



"Our human error rate has dropped from 5 percent to 0 percent with the VP2020," Coache says. "The labels we have now are a lot cleaner and legible. If a label were to get oil on it and smear along the way, you can simply go back, hit reprint and get an exact replica of the label with all the same information - no need to retrace steps."

- **Increased customer (and regulatory) satisfaction:** Colors are intuitive and language neutral. Having the correct usability color code makes it easy for anyone in the facility to quickly locate a specific gauge type and even helps identify misplaced gauges. For example, a gauge carrying a red-rejected label immediately stands out in a pile of gauges marked with green-accept or yellow-limited use labels. After locating a gauge, a swipe of the corresponding barcode printed on the label quickly provides the information needed on the specific part.

"Traceability of each gauge is key for us," Coache says. "Some of these gauges cost \$10,000-\$20,000 each so we need to know where they are, if they've been tested and if they're still operational, fast. The VP2020 allows us to print labels that help us clearly identify and trace gauges. And that's important - especially when a federal regulator questions a technician. The faster we can get federal regulators the information they are looking for, the better."

Now with a greater efficiency over testing and calibration of their gauges, Hamilton Sundstrand can live up to its standard of creating innovative designs for building safer aircraft equipment.

More on VIPColor Technologies

VIPColor Technologies is a leading-edge provider of innovative solutions for the production, management and utilization of package, product, promotion, logistic and location labels across industrial and retail supply chains. We enable on site digital label printing for day-to-day operations. The company's application focus is on net-worked, shop floor batch printing of sophisticated labels to meet mass customization and personalized packaging

needs. Targeted at companies dissatisfied with the long lead-time and large print-run constraints dictated by current label delivery methods, VIPColor is dedicated to creating a new level of labeling value around packaging and identification activities.

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