

Luxottica Leverages 20/20 Vision to Improve Quality with Apriso

With over €5 billion sales in 2009 and over 60,000 employees, Luxottica is an industry leader in the design, manufacture and distribution of fashion, luxury, sport and performance eyewear. Luxottica’s house and license brands include Ray-Ban, Oakley, Bvlgari, Burberry, Chanel, Dolce & Gabbana, Donna Karan, Polo Ralph Lauren and Versace – to name just a few. In 2009, 10 facilities produced 50 million units distributed to 130 countries on five continents; nine logistics centers and 30 commercial branches provide the infrastructure to support every major eyewear market on the planet.

Luxottica sought a new manufacturing solution to replace a custom, legacy system to improve overall equipment efficiency (OEE), increase operations visibility, elevate quality and achieve higher manufacturing operational excellence. With nearly an infinite combination of lens colors, shapes and finishes, a robust, highly integrated solution was needed to monitor production and quality.

“Quality Control or QC was being done visually by assembly-line workers, which was time consuming and inefficient. We needed to reduce our reject rate to improve our QC process and reduce this cost,” said Andrea Gallina, Plant Manager at Luxottica. “Many production and quality processes have now been automated, which has led to faster access to quality data and a greater ability to plan and execute quality improvement activities faster, leading to even better operational performance.”

After extensive research and evaluation, Luxottica selected Hermes Reply as their Systems Integrator to implement their Apriso solution at their Lauriano, Italy plant. Following a successful deployment and test run, Apriso is now live, beginning a new era of manufacturing operational excellence for Luxottica.

An Exacting Process

The manufacturing of the plastic lenses begins with raw materials, which are mixed with a precise combination of pigmented ingredients to produce a specific colored lens for each unique batch. Once the correct color is achieved, the plastic is then poured into molds to create the specified shape for any given batch. The lenses are then treated with various finishes and packaged for shipment to an assembly plant.

At Luxottica’s Lauriano plant, 350 different varieties of lenses are produced on dozens of machines, including 19 for molding, three for coating and 24 for lacquering. The finished product then travels through 21 quality control lines for evaluation and packaging. A single miscalculation can ruin an entire batch. Scrap is carefully monitored; with such costly materials, reducing wastage is essential.



Benefits Achieved

- Doubled production volume with higher quality and reduced waste
- Real-time visibility to production and quality processes for greater manufacturing operational excellence
- Quality Control processes have improved so much that external production processes have now been streamlined
- Virtually all manual production and quality control processes have been eliminated

Complete Visibility Eliminates Errors

Today, the Apriso solution provides Luxottica's plant with full traceability, from raw materials all the way to distribution. Workers simply scan a barcode to assure use of correct materials and machines against specified orders. Determining lens color, shape and finish is now a fully-automated process, with almost no opportunity for redundancy or human mistakes.

"Not only do we now have complete visibility and control over every stage of production, but we can also see details about our operations for any given phase or time frame," continued Gallina. "Apriso gives us access to detailed, real-time reports. Activity can be from a shift, a day, a week or more. We can monitor, trend and analyze specific areas or machines for continuous improvement and best practice enforcement."

The ability to better monitor scrap has let Luxottica keep a laser-focus on its bottom line. Before Apriso, production and waste volumes were estimates. Now the system analyzes and reports on waste from each machine operator by activity. It can determine which work centers are the most productive, and highlight any trouble spots that might arise before they become a big problem.

Doubling Production, Removing Risk

"Thanks to Apriso, our production processes are now done in a more controlled environment, helping to reduce the likelihood of rejecting work in process," explained Gallina. "QC is still done by the workers, but now those workers have fresh eyes and vastly simplified jobs. Best of all, our QC is now cross-referenced with production and scrap reports, ensuring 100 percent accuracy of products leaving the plant."

Delivering "right the first time" yield consistency has extended the benefits and value of Apriso to Luxottica's other facilities. As Gallina explained, "Plants receiving our products used to perform time consuming QC checks themselves before starting assembly. Now, thanks to Apriso, we can better guarantee the quality of the delivered lenses. The other plants quickly recognized this improvement and eliminated their quality checks at the receiving phase."

Production at the Lauriano plant is humming smoothly along at 70,000 lenses per day. "With Apriso, we can clearly see and manage our production and quality processes in real-time, which have resulted in improved productivity and greater manufacturing excellence. We estimate our production volume has doubled with higher quality and less waste – clearly a strong return on investment from our Apriso solution," Andrea Gallina, Plant Manager boasted.

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Plant Manager
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