

# Shopfloor-Online MES drives Plant Performance Improvements and Increases Business Agility of Leading Automotive Supplier, Le Bélier

## EXECUTIVE SUMMARY

Le Bélier is the world- leader in the production of aluminium components for braking systems where it retains a 42% market share.

It has facilities around the world, located in France, Hungary, Mexico, Italy, China and Serbia, producing parts for major car manufacturers and automotive suppliers including BMW, Daimler, Renault Nissan, Volkswagen, Bosch, Delphi and Valeo.



Between 2006 and 2008, Le Bélier completed a major industrial restructuring involving the transfer of its machining activities at a plant in Hungary (BSM Hungary). During this planned relocation, the company made the decision to implement Shopfloor-Online MES to achieve two goals; enable an increase in production and improve the plant's response to Client Quality demands.

The machining plant currently runs **24/7** employing **285** staff.

### **Over 100,000 Quality Checks a Year are conducted to meet the Requirements of their Clients**

Le Bélier's clients, automotive OEMs and their part suppliers, are intensely focused on Quality. Remaining on top of the clients' demand in this arena, as well as ensuring that the costs to do so are kept under control were the main drivers for Shopfloor-Online MES to be implemented initially.

The application is used by production operators as well as by the **23 strong quality department** to monitor and report on production quality allowing personnel to set control limits, track nonconformities and check SPC results.

On the shop floor, Process Auditors conduct on average 120 random checks a day, all manually entered into the Shopfloor-Online software. Pictures can be uploaded on the system to document manual measurement acquisitions for future reference.

**“Delivering consistently high quality products to our clients plays an essential role in the growth and success of Le Bélier BSM Hungary. Shopfloor-Online is instrumental in making this happen.”**

**Deak Zoltan,**  
Quality Manager

Meanwhile in the Metrology Laboratory, parts sampled from the production lines are being Quality checked by Co-ordinate Measuring Machines (CMMs), the resulting data is automatically captured in Shopfloor-Online. When an issue is found, an alarm is raised to the operators warning that production is drifting out of control. **On average, 180 measuring reports are produced daily. Up to 1000 actions a day are taken in the measuring room.**

Shopfloor-Online gives Le Bélier the ability to determine capability for any given product on any specific machine and over any period of time. All the Quality data either captured manually or automatically is stored in Shopfloor-Online and is available for subsequent analysis and reporting.

#### **Better Visibility of Machine Availability to Manage Demand**

For a manufacturing plant running 24\*7, any interruption immediately impacts the ability to deliver customer orders on time. By bringing MES on the plant Le Bélier wanted to ensure that machines would be used at their optimum capacity to complete production orders. Soon after go-live, Le Bélier were having an accurate daily view of the Plant performance. At the end of each shift, Shift Managers were able to record in the MES, machines stop-pages, durations, reasons, quantity of part produced and quantity of scrap for each machine. Reports on output performance, quality yield, and OEE were made automatically available. Previously, the time spent by Shift Leaders on manually collecting and collating all of the production data meant only weekly reports were made available.

The availability of all the production data in one place and the reporting capability have enabled production managers to understand where losses are made. Getting to the root-cause of inefficiencies, they can continuously improve operations.

#### **Increasing Manufacturing Agility by Automating Product Changeovers and New Product Introductions**

Since 2010, Le Bélier have acquired a number of new machines and managed over 20 New Product Introductions.

To further increase the agility of its plant operations now running over **100 machines**, Le Bélier decided to automate the collection of some of the production data. 16% of the production machines are now connected to Shopfloor-Online via OPC. Shopfloor-Online automatically records the part number, the quantity produced, and the stoppages directly from the PLCs. Since 2012, the MES platform also records automatically job changeovers on the production lines so that Operators do not have to manually enter this data. At each change over, the system sends out an email to the operators on duty to notify the change.

#### **By automating the data collection from the machines in the MES Le Bélier has saved on average 300 man-minutes / day**

Quality has been able to quickly and efficiently absorb new product references thanks to the standardisation of the quality checks processes already enabled in the MES.

#### **Reducing the TCO of Manufacturing Intelligence using a single MES System, for all users, everywhere**

When it was introduced in 2007, Shopfloor-Online replaced a legacy manufacturing execution system comprising several home grown applications as well as a paper-based system, all running on 20+ workstations.

Prior Shopfloor-Online the Quality Operations generated a lot of paper work, which beyond being impractical, was also very costly. Quality Operations generated on average 900 printed pages / day, which also needed to be stored for future reference. The connection of the production machines to the MES has also eliminated the use of paper records at this level.

Whereas reporting on OEE/TRS, Spoilage, Downtime or SPC, the Production and Quality departments are able to produce reports based on a single and reliable source of data. Excel queries directly connected to the MES database can also be quickly included in executive reports for the Le Bélier HQ. **The MES platform is accessible from Le Bélier HQ in France over VPN, enabling the business leaders to access the Plant data they need to make critical business decisions, at any time.**



### KEY BENEFITS

#### Quality Operations enabled by Shopfloor-Online:

- 100,000 Quality checks / year
- Over 1000 measuring actions / day

#### Savings:

- 300 man-minutes / day
- Over 300,000 printed pages / year + storage cost

#### Business Agility:

- Smoothly managed 20 NPI in the space of 3 years
- Le Bélier Hungary is in a much stronger position to respond to the renewed customer

**“From an IT perspective, Shopfloor-Online has brought many benefits to BSM Hungary. We are able to support operations more effectively and more efficiently on day to day basis but we are also confident the MES solution can adapt to suit our evolving needs, as was demonstrated in the last 6 years.”**

Attila Bogacs, IT Manager

 **Lighthouse**

**Lighthouse Systems** is a world-leading vendor of MES/MOM systems with offices in the UK, the USA, Singapore and Sweden.

Lighthouse Systems' **Shopfloor-Online™** is a smart manufacturing enabler. It creates the connectivity previously missing throughout manufacturing operations and provides real time visibility of the entire manufacturing operations environment. At the right time, anywhere. With Shopfloor-Online people can work smarter and assets can work harder, whilst delivering superior quality to customers and controlling costs.

The software is modular, with functionalities across all four areas of plant operations, production, quality, inventory and maintenance. It can be hosted on premise, in the corporate data centre and in the Cloud.

For more information please visit our website [www.lighthousesystems.com](http://www.lighthousesystems.com)

Lighthouse Systems has offices in:

**EMEA****Crawley, UK (Head Office)**

Telephone: +44 (0) 1293 605 300

Info@lighthousesystems.com

**Paris (France)****Eskilstuna (Nordic Countries)****Kraków (Poland)****Dubai (UAE)****NORTH AMERICA****Fairport, NY (USA)****ASIA****Singapore**

Lighthouse Systems works with partners in:

**Belgium / Netherlands, Canada, Israel,  
South Africa, Thailand**