

A photograph of a paint shop. In the foreground, a red car bumper is mounted on a conveyor belt. In the background, several robotic arms are visible, some of which are painting the car parts. The scene is brightly lit, and the overall atmosphere is industrial.

SIEMENS

Retrofitting the control system
of Magna Bohemia's paint shop

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Retrofitting the control system of Magna Bohemia's paint shop in record time



- Simatic S7-400 CPU 414-3 PN/DP
- 704 Digital input, 1056 Digital output, 20 Analog input, 2 Analog output
- HMI panels TP700 and TP1200 Comfort and KP400 Comfort

Customer:

Magna Exteriors (Bohemia) s.r.o.

Implementation date:

2015

Implementation location:

Liberec

Siemens, s.r.o.

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Magna Bohemia in Liberec is a manufacturer of plastic components for the automotive industry, supplying components to well-known global carmakers such as Škoda Auto, Volvo, Volkswagen, Ford, Renault, Nissan and others. When the time came to replace the L1 paint shop's control system, which was at the end of its service life, the task was awarded to the Siemens service team.

As the Magna plant is a "just in time" operation, it was necessary to keep to the time schedule and make sure the line started working immediately at full capacity after its re-commissioning and that there was not a minute of precious production time lost through downtime.

The implementation of the order was to be divided into two stages and during two plant-wide summer holidays in 2015 and 2016, the two existing Siemens Simatic S5-115U control systems were to be gradually replaced with two new Simatic S7-400 systems. Migration of the existing application software and the replacement of old operator panels for three Siemens color touch displays TP700 and TP1200 Comfort and KP400 Comfort were to follow. However, the implementation team dared to do the second retrofitting part straight away. With regard to the tense schedule, however, there was not time for pre-testing and everything had to be successful on the very first attempt.

With the new Simatic S7-400 control system, the customer's distribution capacity increased by one-third and the entire line's service life was extended, which also

means guaranteed reliable operation and production in the future. The new system also boasts much greater memory, which the customer appreciated right after the installation, for instance when entering new parameters for communication with frequency converters. There is a whole range of them in the line's technology, and the old system no longer enabled one to make any changes to commands. The possibility of expansion and system openness were among the requirements when the retrofitting was commissioned. The communication speed of the new system is also not negligible.

Moreover, the customer didn't choose the Siemens Simatic S7-400 control system by accident. It has been using the same system on its other production lines and is satisfied with it.

Customer quote:

"We are really thrilled about the speed and quality of the work carried out by Siemens's experts. Due to their reliability, high commitment and good ideas, we saved ourselves one year of waiting for a new control system, and thanks to their adherence to all deadlines we didn't lose one minute of production time. When my colleagues came back from their holidays on Monday morning and the line was switched on, everything worked without even the smallest hiccup."

Jiří Václavík

Technician Magna Exteriors