

PRESS RELEASE
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How older LWB-machines become OPC-UA capable!

To ensure that sustainability does not remain just a buzzword, the injection molding machine manufacturer LWB Steinl has developed an electronics retrofit package for older, generally long-lived existing machines from its own production, with which they can be made capable of communication and thus fit for the future. In the basic version, it creates the conditions for collecting machine data and forwarding it via an OPC UA interface to higher-level systems for production data acquisition and production management. In a further expansion stage, it will not only be possible to collect data, but also to transfer data back to the machines.

LWB Steinl has developed a simple retrofit solution for older existing machines from its own production for data communication with higher-level PDA and/or MES systems via an OPC UA interface and is offering this with immediate effect. Its central component is the "DataBox", a data gateway that is added to the control cabinet of the machine control. In addition, only a 24V power supply is required. It can also be easily retrofitted if required (Fig.1).

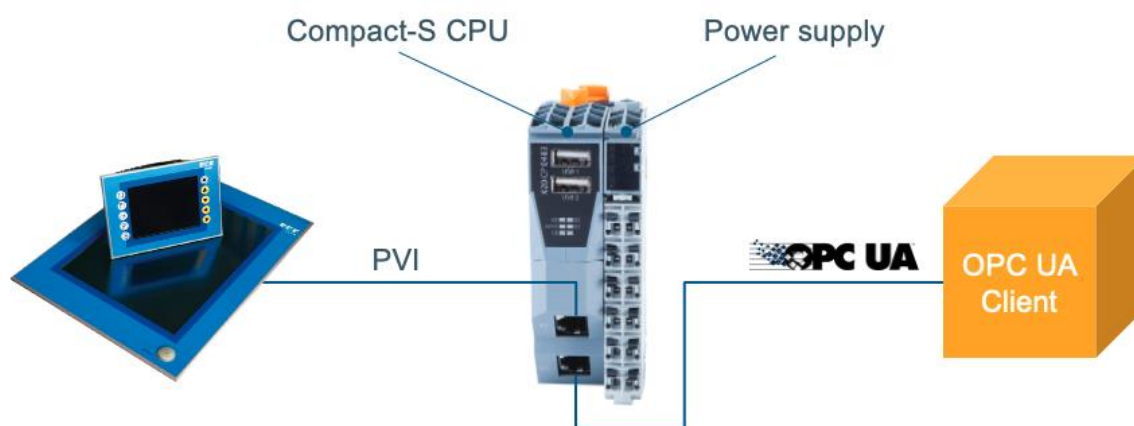


Fig: LWB-Steinl

Fig.1: The DataBox is a stand-alone system that is installed in the control cabinet and only requires a 24V power supply.

Via the DataBox, the operating- or system-data of older LWB control generations can be tapped and passed on to a higher-level PDA or MES system. This means that older

existing machines are no longer excluded from central monitoring including data evaluation and/or data visualization of modern production monitoring systems (Fig. 2).

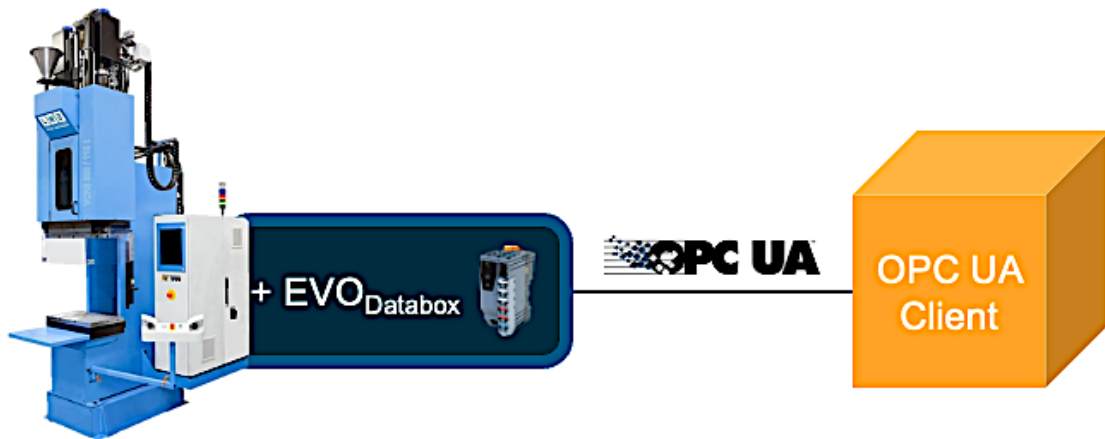


Fig. LWB-Steinl

Fig.2: The data communication or the process data is provided via the OPC-UA communication protocol. (RJ45 TCP/IP interface)

In its basic version, the DataBox is a "one-way system", i.e. control data can only be read and transmitted to a higher-level system. The "two-way system", which will also allow the data-upload, tailored to individual customer requirements, is currently in preparation.

Which LWB machine controllers can be retrofitted?

The DataBox is suitable for combination with LWB machine controllers dating back to the 1990s, specifically for the following models:

- > Piko (variants PP45 and PP65)
- > Flex III and Flex IV
- > ECO (first versions via media converter)

The communication connection to the installed machine controller generation is enabled optional via two ways, either an RS 232 interface or a connection via RJ45 TCP/IP interface (Ethernet cable).

Comprehensive process monitoring possible externally

All relevant **process data** can be viewed centrally from outside via the DataBox.

- > All **axis movements** (the paths during plasticizing and injection, the unit lift-off, the paths of the sliding table, the ejector, the core pull and the safety gate as well as the separator on top and bottom platen).

- > In addition, **pressures** (dynamic pressure and injection pressure), and **speeds** (injection speed, screw speed) can be output.
- > Furthermore, **specific job data**, such as the job number, date and time, cycle time, heating time, shot numbers, piece numbers per shift, temperatures can also be passed on.
- > All **system information**, such as operating mode (manual or automatic), the system pressure, the hydraulic operating time, alarms.

Retrofitting by LWB service organization

DataBox retrofitting on existing machines is a service offered by the respective LWF regional representative.

The aim of this offer is to connect older machines to current data processing systems with manageable effort and thus to extend their long-term usability.



about the Steinl-Group

Founded in 1962 by Alfred Steinl, the company is now managed by the second generation of the Steinl family and is one of the world's leading manufacturers of rubber presses and injection molding machines. The product portfolio includes the complete range of rubber and plastic injection molding machines, from vertical C-frame machines to vertical 4-column or plate frame machines, to horizontal machines in column and C-frame design.

LWB-Steinl currently employs around 210 people and builds around 400 machines per year.

In total, the Steinl Group currently consists of seven companies, which are divided into four divisions. The largest division is Mechanical Engineering, consisting of LWB-Machinery, LWB-Automation, the batch-off cooling system manufacturer Prodicon International Srl and the injection molding machine manufacturer URP (United Rubber & Plastic Machinery Ltd. in Langfang/China. In the stamping technology division, STG-Carrier GmbH produces metal scaffolding strips for automotive sealing profiles. The third division is Sealing and Bonding Technology with Dreibond GmbH, a manufacturer of adhesive systems and the necessary application technology. The fourth division is the biomaterial production of the Biofibre GmbH in Altdorf with its subsidiary Naftex GmbH in Wiesmoor / Lower Saxony.

More under: www.lwb-steinl.de

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