

Software as the Core of the Company

In the European flat glass project business, delivery reliability, flexibility, and short delivery times are on demand; high quality is taken for granted. Flat glass processor Reflex demonstrates how lean processes, state-of-the-art machinery and intelligent IT support can be efficiently combined in order to produce top quality for utmost competitiveness.



Managing Director Deborah Krempl-Doplihar leads the family business in the second generation. A+W account manager Peter Kénesy is on the right.

Tempered glass or annealed glass as part of a laminated sheet? All this integrated in a performance IG unit? No problem. After the recent innovations in IT and machinery, Reflex is a genuine full-range trader who produces any kind of sheet combination and any required processing, from cutting to shipping. This includes glass for interior design: If a sheet needs to have several drill holes, corner cut-outs, bevelled edges, and digital print - all this can be made.

Deborah Krempl-Doplihar, Managing Director of Reflex states that „every customer gets the product he needs: fast, complete, and on schedule, no matter of the order consists of one or of five hundred sheets. And everything is delivered in top quality.“ Strong, independent glass suppliers like the family business of Reflex are not bound to certain brands or glass types in the international project business. This is exactly the reason why the Slovenian company has been much in demand as an after partner for sophisticated projects, on their home market in Slovenia as well as in Germany, Austria, or Great Britain and Scandinavia.



Technical order entry by means of A+W CAD Designer. This CAD system for flat glass also creates control data for Forvet Chiara and other CNC lines.

The portfolio includes the entire range of products and services in connection with flat glass. Their own IG and safety glass production is complemented by their own assembly teams. It also offers glass for facades, windows, as well as all-glass systems and fire protection glass. The range is rounded off by interior design products like glass showers, stairs, doors, and partition walls.

Apart from the project business, manufacturers of sophisticated architectural elements are regularly supplied with high-tech glass from Gornja Radgona (Bad Radkersburg).

To guarantee the consistent quality of their glass products, Reflex closely co-operates with ift Rosenheim and is multi-IG RAL certified. In addition to that, Reflex also produces aluminium products for facades. The know-how gained from their work with glass in connection with aluminium profiles has opened up additional fields of business. This includes the production of complete doors, windows, and facade elements as well as fridge doors for highest industrial requirements: The fridge doors are manufactured from aluminium profiles and completed by high-performance IG to the customer's requirements.

4.0 – Intricately controlled production

The production environment of Reflex is a highly integrated, networked system of modern machinery and industrial manufacturing equipment, rounded off by the sophisticated A+W production control. Only if the overall system is consistent, the individual elements can reach their peak performance, says the Managing Director of Reflex.



The A+W Production Monitor at the IG line entry shows the sheet structure, position of layers, and reference edge.

The automated production is therefore intelligently linked with technical order entry: CNC processing centres like Forvet Chiara or the Lisee Waterjet are controlled real-time by A+W CAD Designer through high-tech interfaces like CAM-DXF.

The CAM-DXF interface does not only offer data on the sheet geometry but also on machine configuration: Machine programming is no longer necessary, and even smallest batch sizes can be produced profitably.

The software directly communicates with the CNC line; the machine operator is responsible for the monitoring, registration, and completion reports. He will only intervene in case of disruptions.

At every workstation, A+W production monitors supply the information required such as sheet data, the necessary processing steps, next processing steps, etc.

Appropriately configured, an IT system that can handle all elements, processing steps, shapes, etc. - even for complex products - will make all sorts of production papers redundant.

Labels provide all necessary information which is loaded from the production database by a simple scan, and can be shown on screen for information, control, and monitoring purposes.



By barcode scan, the machine operator at the Forvet CNC processing machine (left) displays the sheet data on the A+W Production Monitor. No programming of the machine is required as the high-tech interface CAM-DXF (A+W) supplies all sheet and machine parameters and thus programs the machine automatically.

Geared up for the future

With this comprehensive automation and networking, the Slovenian processing company already meets many of the industry's requirements: production environments in which machinery, software, and workpieces communicate independently.

Deborah Krempl-Doplihar: "My father always used to strive for the optimum production solution. This also applies to the software we are using. We have therefore been using A+W software for more than 30 years, and have never looked back. Another important criterion for us is service. At A+W, this is solution-oriented; their experts know their job and communicate excellently with our staff and machinery partners."

Thanks to the networked production at their own site, Reflex always has the necessary control of quality, delivery times, and shipping – through their own fleet, of course. This applies to unique products as well as for complex glazing orders comprising hundreds of sheets. „This is the basis for international business in Europe“ says the Managing Director. We are geared up for the future!.

Translation from the glaswelt 09.2016