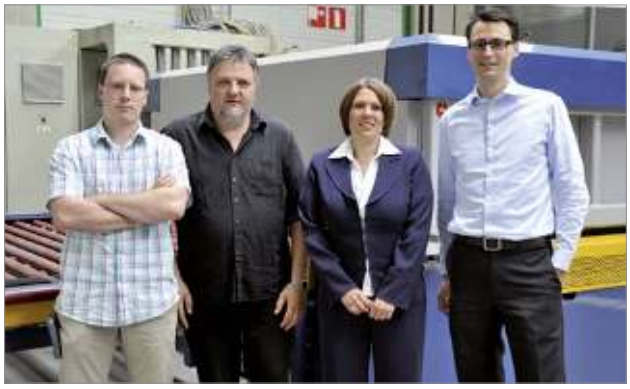
Independent and unique

LEROBEL: Glass Partner for Special Requirements

There are those architectural glass products – and always have been – that not every glass processor can produce and supply. Glass elements beyond the main stream for which architects, curtain walling constructors, interior designers, and manufacturers of exquisite glass/metal constructions have got their own, very special addresses. One of the most select addresses is Lerobel NV of Hasselt / Belgium. Perfectly located between Antwerp and Aachen, Brussels and Eindhoven, Lerobel is one of just a few independent glass processors in Belgium, with an excellent reputation as a flat glass partner for special challenges.

Unlike many glass companies who have been claiming their market segment in the course of the insulating glass boom of the seventies, Lerobel, founded in 1939 by the Leroi brothers, is a genuinely traditional enterprise, emanating from a glazier's show and mirror factory in the city of Hasselt. Today Lerobel, owner-run in third generation by Yannick Leroi, is an ultra-modern, medium-sized company with 100 employees and an annual turnover of 14 million Euros.



Right to left: Yannick Leroi, Managing Director and owner of Lerobel; Sandra Kugler, ALBAT+WIRSAM Consulting and Sales for France and Benelux; Lou Brouns, IT Manager of the Leroi group, and Lerobel Production Manager Michael Joosten.

Comprehensive Production

Lerobel produces and supplies top-quality architectural glass for house fronts, windows and glass door systems, plus products for interior design like showers, stairs, doors, and glass partitioning. Lerobel is an expert and well-equipped partner for glass fitting, from complex glass door systems via fitting jobs in connection with renovation and redecoration, up to fascinating compositions for house fronts and roof constructions made of curved glass.

The creation of top-quality glass products requires many processing steps. One of Lerobel's strong points is that nearly all of these steps are performed on site, by expert staff, under the eagle eyes of the thorough Lerobel quality assurance department. Toughened glass or partly toughened glass as part of a laminated sheet? All in one IG unit? Or several drilled holes, corner cut-outs, and perfect edgework as part of a glass door system?

Lerobel produces these constructions throughout on site, from cutting to production, and shipping via their own fleet and – if required – expert fitting on site by the Lerobel specialists. This is part of Lerobel's service for unique specimens as well as for sophisticated curtain walling consisting of hundreds of sheets, structural glazing made in one casting, as well as for curved glass compositions where accurately produced radii guarantee the perfection of the ensemble.

IG for Highest Demands

Sanco® IG is one of the main products – Lerobel's quality and delivery capacity is exemplary, not least because of their production depth. The product range consists of high tech glass with the functional targets of thermal insulation and sun protection, film-reinforced glass structures for sound protection and safety, and highly complex glass combinations which bear witness of Lerobel's high standards and business spectrum. Many of the IG units include modern Georgian bar patterns, constructed by means of a special CAD module which is part of the ALFAK order processing software. Three state-of-the-art IG lines one of which is fully automatic, make the production of triple IG –

Left: Harp rack organisation in the cutting area. The XTV control unit unfailingly shows the breakout pattern and stacking instructions; sorting in the cutting area is a swift and reliable process. The advantage of networked production control: Once entered, sheet data are available at every single terminal, including the IG lines. (Right): ProdTV IG supports the machine operator with information on sheet structure, positions of layers, and reference edge.

The new congress palace in Brussels, opened in September 2009. The sheets for the architecturally fascinating 14 metre high glass cube in front of the main entrance were supplied by LEROBEL. Each of the Sanco plus® laminated sheets has its own size and shape. Not a single sheet is rectangular!

Pre-processing at Lerobel entails the complete range of glass processing: Milling, drilling, bevelling of shapes, grinding, grooving, surface processing, sand blasting, engraving: The grinding shop as the core of a distinguished glass processing enterprise.

which holds a large part of all the IG units Lerobel produces today. One of the lines, combined with an edger for big sizes, is designed to produce jumbo-sized IG units (6,00 x 3,21 m).

Processing on Top Level

2008: Lerobel invests two million Euros in machines and software. Grinding is completed by a Lisec Waterjet, a vertical waterjet edger for processing complex shapes. „This new machine permits highly specific and very precise processing combined with an excellent performance, especially when it comes to producing complex doors", Yannick Leroi explains.

ALCIM – Planning and Control

The efficient production landscapes of today are highly integrated, networked systems consisting of machinery and complex IT systems. Only if the entire system is consistent within itself, can its individual elements reach their maxi-mum performance. With this in mind, Lerobel used the innovation boost of 2008 / 2009 to introduce a modern, comprehensive software system for networked production. How can you judge the performance of a fast CNC processing centre if the sheets are not available at the machine entry at the right time? If, for example, sheets get stuck at cutting, or if sheets get lost all the time? How can expensive production errors, incomplete shipments, and expensive delays be avoided? IT manager Lou Bruns explains: „ALBAT+WIRSAM's production system ALCIM controls and monitors the production process, from order input via machinery control up to the shipment of the finished goods. The comprehensive barcode control now shows the whereabouts of any sheet, any time. All commercial and technical data are available throughout the company – without having the staff wander around, carrying folders and stacks of papers to find out what shall happen to the individual sheets."

With an IT system capable of handling all elements, processing steps, shapes, etc. even for highly complex products, work orders become redundant through the appropriate configuration. Labels carry all the necessary information which is loaded from the production database by a simple barcode scan and is displayed on screen for information, control, and moni-

Networked Production – Toughened Glass

In Hasselt, Lerobel produces the top-quality toughened glass brand LERODUR® up to 10 mm in thickness and sizes of up max. 4400 x 2400 mm, with a joint venture in Antwerp even up to 6000 x 2800 mm. Even sheets with modern soft coatings can be toughened without a problem.

Like all production processes at Lerobel, their toughened glass production is supported by control units of the production control system ALCIM. At the entry of the TAMGLASS convection furnace, the operator scans the barcode on the sheet label before re-moving the label. He is presented with a true-to-scale technical drawing which permits to check the sheet parameters and the pre¬vious processing steps. By releasing the sheet he reports it to the furnace exit (photo bottom right) where it is reported "complete". Printout of new labels – right at the furnace exit – is triggered automatically while ALBAT+WIRSAM's production control software assigns the newly toughened sheet to a rack. The loss of toughened sheets or wrong or missing processing steps are as good as unheard of at Lerobel.

Steel and Top Software: Skilful Bending

Lerobel is one of the most experienced producers of curved architectural glass in Western Europe. This proficiency is much demand, even outside the Benelux countries. Four bending furnaces are used to produce curved glass up to a maximum size of 4450 x 2450 mm. Curved glass from Hasselt is the basis for breathtaking architectural design, with all the advantages of modern functional glass.

Examples are roof structures of sophisticated shopping malls, domed roofs, verandas, rounded corners of house fronts, furnace elements, automatic doors, and high-quality showers. The production area for curved glass looks like a metal-processing factory at first sight, the alpha and omega of the precision processing executed by experienced specialists by means of gravity and heat being the steel bending moulds. A customer-oriented specialist like Lerobel keeps many of these seemingly archaic moulds on stock because what if additional sheets are needed? Unfailing service which is rewarded by the customers' trust.

This unique part of the shop floor is supported by the modern software solution the Lerobel staff are using to enter even curved laminated and insulating glass, with all the necessary elements and processing steps, even capable of handling two-dimensional processing: The module for curved laminated glass is a unique feature of the ERP system ALFAK. „Because of advanced features like this", Managing Director Yannick Leroi explains, „our software partner is ALBAT+WIRSAM. There is no other business software that can handle our diversified product range with its enormous production depth."

toring purposes: Thanks to ALCIM, practically all terminals at Lerobel are equipped with monitors.

ALFAK at Lerobel: Managing the Diversity

2008, Lerobel's existing order processing system has reached its limit. Complex products cannot be handled, there are no progressive options for technical order entry. Manual entry of multi-step products takes input and production time. The commercial software simply failed to cope with the highly complex product range – Yanick Leroi: „Our old order entry system was too much tailored to the needs of mere IG producers. ALBAT+WIRSAM's ALFAK however allows to construct from scratch every product required, thanks to its bill of materials concept. Every single shape, every element, every processing step can be defined – formerly, we often had to do this by hand, on a piece of paper!"

ALFAK's module program structure permits the flexible definition and control of the complex business processes of Lerobel. For administrative tasks, Yannick Leroi especially appreciates the superb options for presenting business figures by means of ALFAK's comprehensive statistics and graphics functions.

Quick input of a stack of faxes is as easy as the construction of technically complex sheets by means of the integrated CAD system Shaping & Nesting.

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Software-controlled laminated glass production. Right: The ALCIM information system ToolTV shows the sheet structure and the necessary film layer(s) to the ladies in the clean room. Monitors replacing stacks of papers, production becomes more fluent and more reliable. Left: Completion report and label printing before the new laminated glass unit is passed on to the autoclave. The barcode label conveys information and points the way through production.