The Popular Cutting Machine for Float Glass.

RAPIDUNE -- Attracting Performance.

It's unique mixture of clearly defined performance range and a trend-setting technology makes the RAPIDUNE a popular care for a three piece cutting line.

- High cutting precision due to electromagnetic linear drives
- Optimal cutting speed
- Significant reduction of maintenance
FOUR PROJECTS THAT EMPHASIZE THE COMPANY’S CAPABILITIES AND COMMITMENT TO ATTENTION TO DETAIL

sedak specialises in premium quality oversize insulating and safety glass up to 16 meters. Since 'big' is not only a question of dimensions, the glass manufacturer from Gersthofen displayed a focus on perfection in detail during BAU 2017 in Munich Germany.
Sedak showed what that means for glass with four large exhibits: an insulating glass unit with a unique quality of the edge seal produced in a fully automated way, a high-resolution ceramic-ink digital print with a back-lit image, a part of a glass-fin façade with just a few connection elements, and finally a cold-bent triple laminate. The latter was produced for the shipbuilding sector and has already been installed as a 10-layer laminate. The triple unit also caught a lot of attention at last year’s glasstec. With those exhibits in special sizes, sedak impressively underlined its pioneering role arising from ten years of experience in glass technology for oversize and special glass.

Sedak, the leading innovator for oversize formats and customized solutions, has established a high level of know-how in manufacturing large glass. In many cases, that competence can be seen in details. Only if by finding path-
breaking solutions for the small details is it possible for big ideas to work. To prove that, sedak exhibited glass at the BAU 2017 according to its motto ‘Big in Detail’ using four exhibits to explain the techniques behind them.

**GLASS IN A KEY POSITION**

Maximum transparency can be achieved as soon as the façade’s supporting structure is out of glass. As an example, sedak showcased this modern architecture concept with two façade elements connected to a glass fin. Both the six-meter high fin and the glass panes are multiple laminates fabricated with an edge quality characteristic for sedak. The toggle system with its minimalistic connection elements, is a trademark of the company’s technical brilliance. The parts have been laminated between the laminates’ layers in a highly precise way so that the elements are almost invisible. This unique technology opens new ways of designing façades. sedak has used the technique for the Apple Cube in New York, the Skywalk in Dubai as well as for several glass-fin façades of premium stores. The glass manufacturer produces the supporting glass fins with fixing elements such as metal shoes. The design allows for simple installation on site.

**LARGE PRINT WITH HIGH LEVEL OF DETAIL**

With a 5.5 meter long and 2.6 meter high glass pane, sedak displayed not only its motto, “Big in Detail,” but also its printing capability. Since 2014, sedak has operated a ceramic-ink digital printer for 16 meter long glass with a resolution of 720 dots per inch. That enables sedak to create a back-lit, printed glass display that impresses with excellent colour brilliance and a very high level of detail.
By firing the colours in the tempering furnace, they are permanently bonded to the surface and the print is extremely resistant. The glass produced for BAU 2017 was printed with a photo showing how an insulating glass unit is siliconized on the world’s largest insulating glass line in sedak’s production hall.

**CURVED WITH PRECISION**

Cold-bending during lamination enables sedak to produce curved glass of very high quality. During the lamination process in the autoclave, only the foils between the glass layers melt. After cooling, the glass therefore appears in perfect quality without any roller waves or other defects.

Cold-bent multiple laminates redefine the possibilities of glass processing. The fabrication requires an absolute precision and dimensional accuracy. sedak presented a 20 millimetre thick triple laminate of 1.28 by 3.68 metre samples similar to the model that had been installed on a mega yacht. The bending line with a rise of 120 millimetres is diagonal so the glass pane nestles perfectly against the ship’s spherically shaped hull. Beside the high demand for precision, the glass panes have to pass leak tests for usage under water. But the architectural sector also benefits from cold-bent glass since
it allows for diverse design possibilities.

**AUTOMATED PERFECTION UP TO 15 METERS**

sedak produces double and triple insulating glass units with a length up to 15 meters on their fully automated insulating glass line. The industrial manufacture ensures that all details are executed correctly. An exact positioning of the spacer and a precise silicon application is guaranteed even with non-rectangular glass. Furthermore, the IGU line has reduced the production time significantly so that large formats are now fabricated more economically. As an example of a highly precise production of oversize glass units, sedak showcased a 2,800 millimeter wide, 4,000 millimeter high and 600 millimeter thick triple insulating glass unit that also contained a laminate. For the highest quality requirements and a uniform and exact appearance, the coated glass pane has a printed edge.

**INNOVATION LEADERSHIP – FORWARD THINKING**

sedak not only showcased big formats but also that it is big in quality. In particular with special constructions, the glass manufacturer demonstrated its solution-oriented competence – always with automated precision. As a leading innovator, sedak has pushed production automation further with new technologies and machines during the last two years, and also developed better logistic capabilities. sedak now has the world’s largest inloader, which can transport glass up to 16 meters, including the glass rack. Due to its refined interior concept, no escort vehicle is required. A crane or a glass vacuum lifter for a time-consuming unloading is not necessary anymore.

**PRESENTATION VIDEO**

Since 2015, sedak has fabricated oversize insulating glass with the world’s largest, 145 meter long insulating glass line. It enables the manufacturer to produce double and triple units up to 15 meters and 7 tonnes, fully automated and in a reproducible quality. That corresponds to a loading capacity of up to 450 kilograms per meter. In a short video, the milestone in the insulating glass production can be appreciated. The video can be found at: https://www.sedak.com/en/image-film/
The clip gives an interesting insight into the unique production of oversize glass units. What used to require several days of manual manufacturing can now take less than an hour. The entire process is fully automated, from equipping the insulating glass line all the way through to positioning the spacers accurately to a millimeter to de-stacking the finished glass units. Thus, the panes are available more quickly. The new technology offers architects and façade constructors new design possibilities.