

## Press kit concerning elumatec and its presentation at fensterbau/frontale 2014

**A host of innovations awaits visitors to the elumatec stand (no. 514, hall 3A) at fensterbau/frontale 2014. elumatec is the world's leading manufacturer of precision machining centres for aluminium, steel and plastic profiles. At the show, elumatec will be unveiling its SBZ 137 profile machining centre for aluminium, steel and plastic profiles.**

### **I'd like to welcome you to the first press breakfast of the new elumatec.**

As you know, we're one of the world's leading manufacturers of machining centres for aluminium, steel and plastic profiles, for all users, from SMEs to industrial profile producers. And all of this remains unchanged. And we remain just as committed to innovation as ever before. Which is why our entire stand at the show is taken up by new elumatec products. And we're very pleased to be unveiling, at the show, a highly innovative product that's in a class by itself – worldwide. But more on this later.

Our new products are one of the cornerstones of the new elumatec. But we have more than this to offer and want to offer you still more. We're off to a successful start as a PLC – our figures currently exceed the planned figures – and all of us are thrilled about this, and are very excited about the future. As you can see, we've also rolled out our new logo and corporate design.

But the new elumatec is also committed to new concepts and new types of collaborations, both internally and externally. To this end, we've beefed up our sales and marketing staff; we've professionalized our service business; and we've greatly improved the performance of our subsidiaries and affiliates.

The success of these efforts is already reflected in improved cost efficiency, which means that we can again look forward to profitable growth as from next year at the latest. We're also innovating in the sales and marketing field and are seeking new partners in this regard.

And now it's my great pleasure to announce to you, exclusively, such a partnership. We're currently in the process of transforming what's already a partnership of long standing with Stürtz Maschinenbau GmbH, into a direct co-operative marketing arrangement. Both Stürtz and ourselves offer extremely sophisticated products which, through continuous optimization and innovation, we adapt to changing market requirements. The combined portfolios of our two organizations constitute a complete range of window and door products for all customers.

Our joint customers will now be benefiting from an outstanding marketing network and will soon be receiving a complete product list containing the best of both worlds, namely aluminium and PVC.



Welding and corner cleaning production line ES-CL-2AML-HSM

Stürtz is also expanding its portfolio of products for the manufacture of plastic windows and doors from a single source. elumatec is the world market leader in the plastic, aluminium and steel profile machining centre manufacturing sector.

The partnership with Stürtz will enable both of our companies to optimally meet our customers' needs. Customers will now be able to obtain machines or complete production installations that are tailored to their exact needs. Thanks to modular machine concepts, customers will also be able to flexibly adapt their machinery fleets to the growth rates of their organization. The partnership with Stürtz will also encompass almost worldwide customer service and jointly developed concepts for commercial products.

We'd be more than happy to personally provide you with any additional information you may require.

But now I'd like to present to you the innovation that I mentioned earlier.

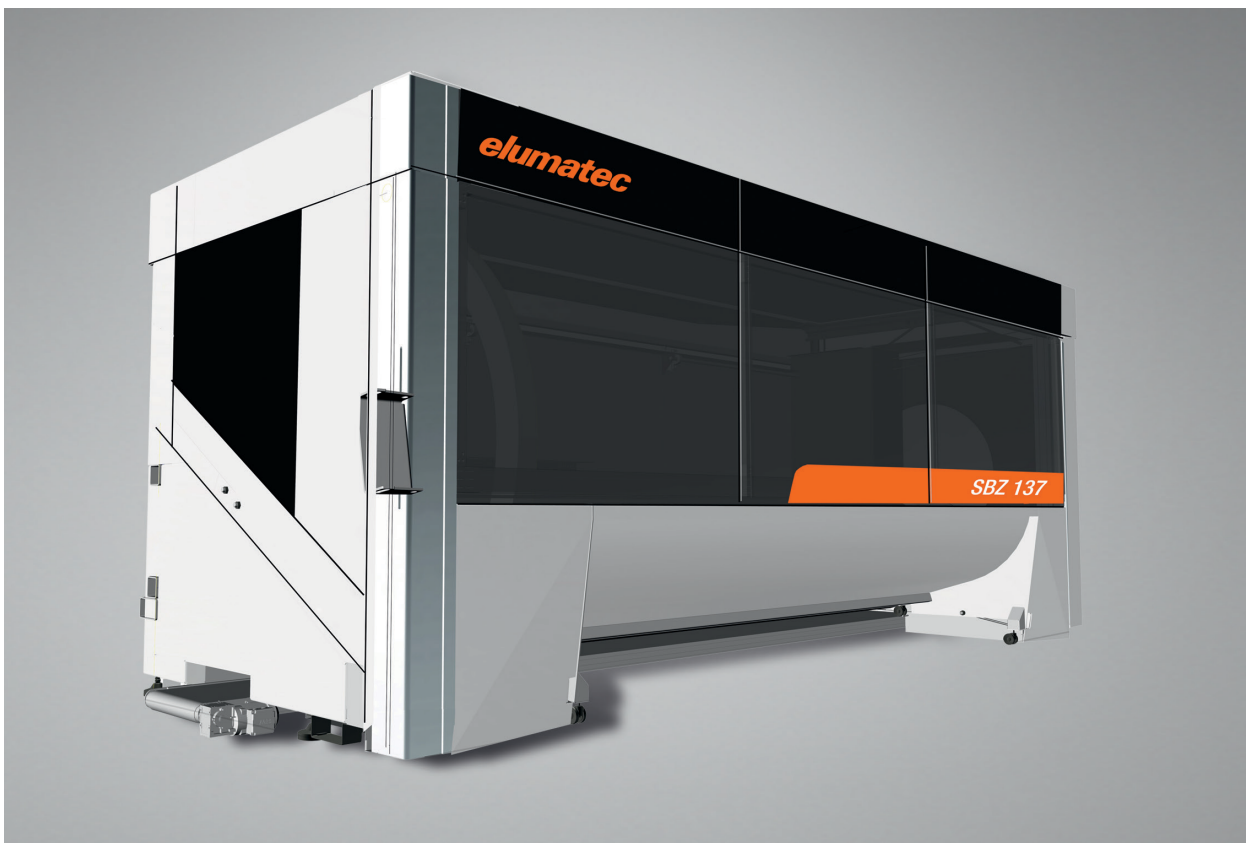
## Compact machine for versatile profile machining

**A premiere for a ground-breaking solution: elumatec to unveil its compact SBZ 137 profile machining centre for aluminium and plastic profiles. The SBZ 137 is notable for its innovative, patented machine concept, featuring a workpiece table that is inclined toward the operator and an extremely fast ring module with a powerful spindle.**

The workpiece table, which is tilted 30 degrees, enables the operator to work in an optimally ergonomic fashion in that he can load the machine from an upright position, thus avoiding back strain. Among the ergonomic features of the SBZ 137 is that all cleaning and maintenance tasks are very simple to carry out. Chips automatically fall off the SBZ 137's inclined workpiece table; a chip conveyor is available for the machine as well.

Another advantage of the inclined workpiece table is that it affords the operator a very clear view of the four-axis machine in all machining positions.

The ring module runs at up to 150 m/min on the machine bed (on a par with Formula 1 speed!) for profile machining and shortens machining times. All other axes also reach their maximum speed very rapidly. The desired effect: optimally short machining times. The spindle can move rapidly, and with a very small safety gap, around the profile while its various surfaces are being machined.



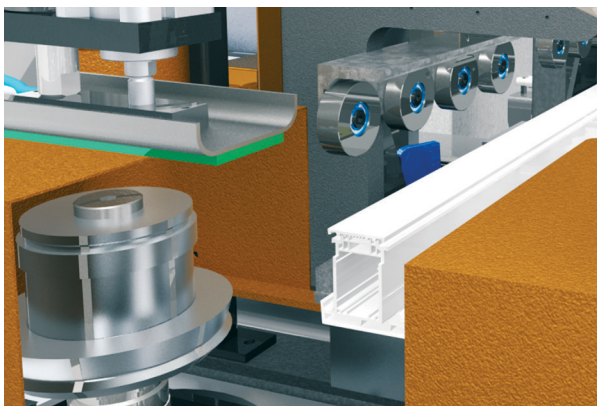
At this year's fensterbau/frontale trade show, elumatec will be unveiling the following ground-breaking solutions: The SBZ 137 profile machining centre featuring patented solutions.

## Versatile PVC post-processing centre with rotation module

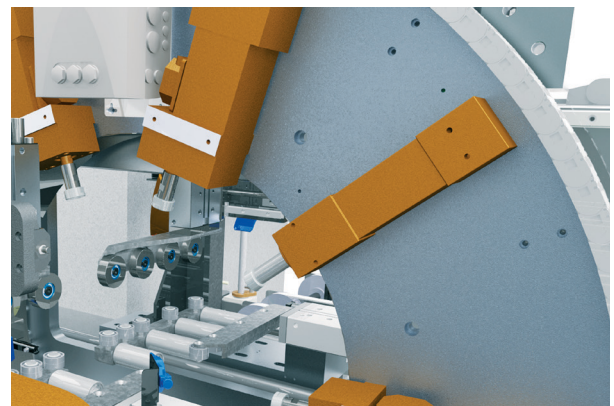
The SBZ 617 post-processing centre, which is notable for its outstanding versatility, allows for the machining of PVC window and door profiles. Using the machine's rotation module, the operator can machine all profile surfaces steplessly at every angle from 0 to 360 degrees. The continuously pivotable rotation module integrates milling spindles with freely programmable RPM regulation, as well as powerful geared drilling motors that can be rotated to any work angle desired. The machine enables the operator to carry out all necessary profile bar tasks. The SBZ 617 can also be used to machine steel-reinforced profiles.

elumatec has developed a patented solution for the rotation module that allows the clamping unit to be securely attached to the ring using screws and compressed air.

The post-processing centre can be run without operator supervision. The SBZ 617's accessories include a tool breakage monitor that ensures that all necessary machining steps are carried out. The SBZ 617 can optionally be outfitted with a notching station that allows for additional machining of windows with transoms as well as profile end machining. The compact and versatile SBZ 617 takes up very little space, even with the notching station attached. Thus companies with limited space can implement automated machining without investing in a new hall.



The optional SBZ 617 notching station.



The rotation module for profile machining and for clamping unit tightening on the SBZ 617.

## Powerful saws for aluminium profiles

The SBZ 616 is a powerful aluminium and plastic profile saw that can be used in conjunction with the SBZ 617 or as a separate sawing station. Thanks to its generously proportioned saw blade diameter (550 mm), large profiles can be sawed as well. The machine's special feed cylinder allows for precise sawing from below the workpiece. The saw's highly efficient mechanical damping reduces saw resistance, thus allowing for steady sawing of multi-chamber profiles with large cavities. The result: clean cuts and precise mitering angles.

The basic version of the machine allows for cutting at 45 and 90 degree angles, as well as 90 degree cutting for transoms and residual pieces. The Vario saw allows for stepless and freely programmable cutting at all angles ranging from 22.5 to 157.5 degrees.

Because all elumatec saws, rotation modules and notching stations are constructed in a modular fashion, the SBZ 616 saw and the SBZ 617 post-processing centre can be combined to form a single machining centre, the SBZ 618, which is a compact installation for all necessary PVC profile bar machining. The SBZ 618 allows for automated mass production as well as versatile machining of special workpieces.



Powerful saws for aluminium and PVC profiles. The SBZ 616 variant known as the Vario, which allows for stepless and adjustable cutting angles ranging from 22.5 to 157.5 degrees.

## Profile machining centres

The five axis SBZ 151 machining centre is a budget, entry-level solution with smaller spindles and without automatic clamp positioning.

The three axis SBZ 122 machining centre is also available in a lower priced version with air cooled spindles. elumatec has modernised the following models by integrating new control systems into the machines that render them more user friendly than ever before: the four axes SBZ 140, the five axes SBZ 150, and the DG 244 double miter saw.

## Greater machining quality with lower energy costs

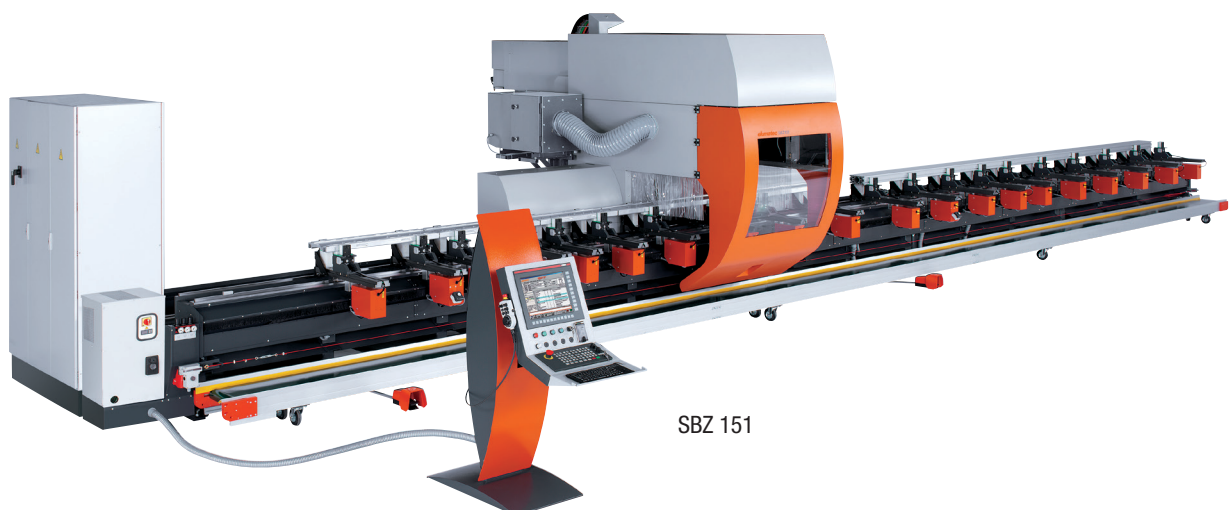
Thanks to improvements in its firmware, elumatec has optimised basic components that allow for cost effective, precise, reliable and user friendly profile machining. The current crop of improvements allows for more rapid machining unit positioning, shorter paths for more rapid workpiece machining, and optimised milling quality and tool breakage monitoring. elumatec's developers place particular emphasis on the use of energy efficient motor technology, which accounts for a large proportion of a machining centre's operating costs. Considerable savings are achievable in this domain, depending on machine capacity use.

For example, elumatec uses controller components that only feed the amount of energy to the motors that are needed at any given moment. This saves energy and increases motor service life. Spindle motor regulation reduces energy costs and allows for an extremely constant RPM, including under greatly fluctuating loads, e.g. during hollow-chamber profile machining. The result: outstanding machining quality.

Starting with for its SBZ 140 and SBZ 150 profile machining centres, elumatec uses components that recover energy when the machine is braked and release this same energy when the machine is accelerated. What's more, surplus energy can even be fed back into the grid – a feature that dramatically reduces energy costs.

## Options

New sensor technology allows profiles to be measured while being machined. The measurement readings can be used to precisely position the workpiece. The tool changer function has been revamped, so that now all necessary data can be viewed at a glance. The tool changer is loaded via drag and drop.



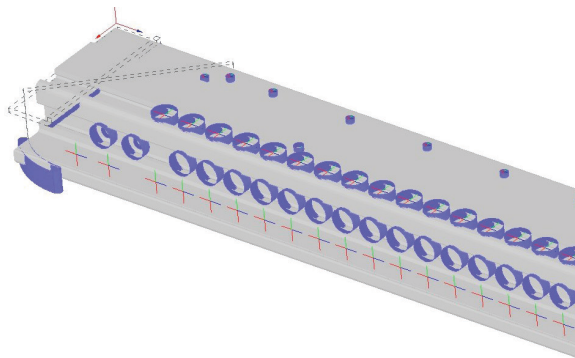
SBZ 151

## Importing and processing assembly 3D files

elusoft GmbH, which is a subsidiary of elumatec AG, presents innovative solutions and optimisations for profile machining.

### Importing 3DECW files: Importing assembly step files

The 3D Import eluCad module now supports ECW files, which means that multiple step files (e.g. for all components of a given assembly) can be imported simultaneously. Keyboard shortcuts can also be created. Alignment is based on the location of the profile in the profile database. This function can only be used with eluCad version 2013. eluCad is a highly reliable profile machining firmware solution for elumatec AG profile machining centres. A 3DECW generator developed by elusoft GmbH has been integrated into the 3D Import eluCad module.



All components of any given assembly can be imported. The 3D converter recognizes various types of machining in a matter of seconds and programs them automatically.

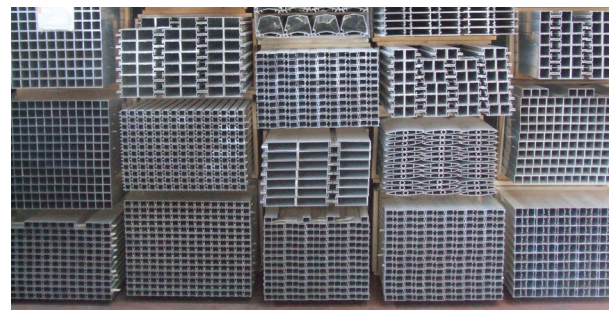
### 3D converter: profile database for additional information

eluCad allows for simple and rapid creation of machining programs for elumatec profile machining centres. The eluCad 3D converter recognises machining from a 3D model and automatically programs the relevant machining task in a matter of seconds. The module recognises virtually every imaginable type of machining, such as boreholes, circle pockets, slits, counterbores, slots, rectangles, notches and saw cuts.

The optimised version of the converter makes it easier than ever before for the user to view information such as profile colour, profile name, assignment to an assembly, and profile storage location. There is now a link to the existing profile database, where the operator can do a search for the currently recognised profile. This database contains all additional information. The 3D converter recognises not only machining tasks but also profile cross sections. If similar profiles are recognised in the database during a profile search, a list of options is displayed for the user to choose from.



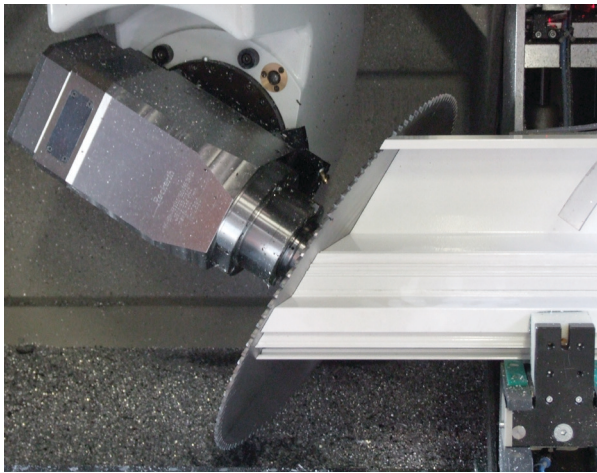
The 3D converter provides operators with additional profile related information such as colour, assignment to an assembly (picture on the left), and profile storage location (lower picture).



## CSV importing allows for rapid creation of machining programs

The CSV Import eluCad module allows the user to import Excel files for the purpose of managing previously created master programs. The master programs need to be programmed only once, and can then be managed via the CSV file. This means that once the master program has been created by an expert, the remaining work can be done by a less specialised worker.

For example, for curtain wall manufacturing, many similar elements, including with differing compound miters, can be deftly and rapidly programmed. Project parts lists can be merged using master programs, which means that the necessary machining programs can be created automatically with minimal programming effort. Using CSV files, ECW files containing job order information can be imported and edited.



CSV files can be used to manage the master program, thus allowing for deft programming of large numbers of similar components.

## How many parts have been produced thus far? ECI Moni knows!

The ECI Moni program collects machine and operating information. How many parts have been produced thus far for a given job? Has the machining program been run or was it interrupted? For how long has the machine been running? When was a given part produced? What is the machine currently machining? Has there been any machine down time? The program provides detailed responses to such questions. There is also an app that enables users to view this information on their smartphones.

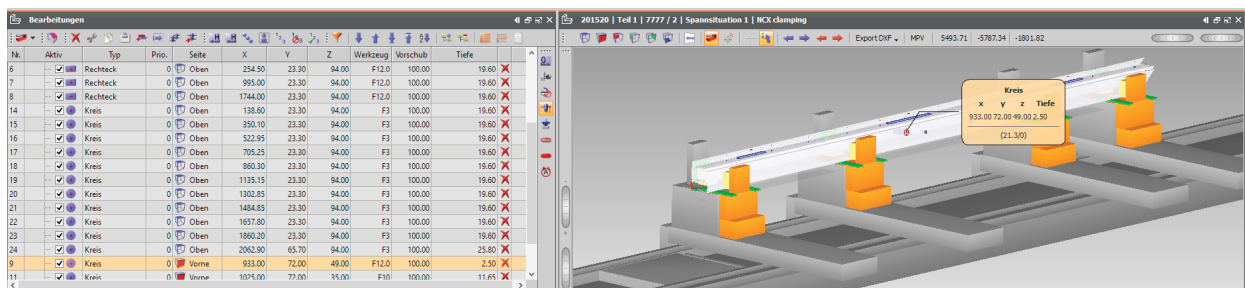
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Insgesamt 5 mal produziert	
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The ECI Moni program collects machine and operating information for monitoring or evaluation.



## User interface with multi-touch functions

elumatec has developed a modern user interface for profile machining centre PCs that allows for navigation using multi-touch functions. Familiar smartphone and tablet functions such as scrolling, swiping, and bringing up windows with two fingers are now also available on the machine PC. In the event a machining program is interrupted, a plain-text error message indicates the cause and location of the error. Navigation is intuitive and can be personalised using apps. The new user interface also allows the user to call up eluCad profile machining firmware, as well as any eluCad add-on module. See [www.elusoft.de](http://www.elusoft.de) for more information.

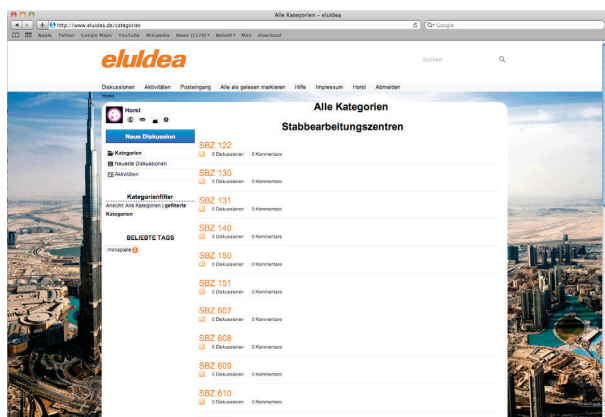


The user interface features multi-touch functions and allows the operator to call up the eluCad profile machining software.

## eluldea: a platform for ideas and feedback

eluldea is a new website ([www.eluldea.de](http://www.eluldea.de)) where users can provide ideas and other feedback concerning the product and service portfolio of elumatec AG and its subsidiary elusoft GmbH. The website affords users the opportunity to, for example, suggest new products, suggest improvements in existing products, and indicate product attributes they'd like to see changed. The website is free of charge and open to everyone, from business owners to machine operators. By availing themselves of the site, users can communicate directly with elumatec and elusoft product developers, who supervise the forum in a professional fashion.

Would you like to give us feedback? Did you have a flash of inspiration while operating the machine? Or did your brilliant idea come to you while drinking beer with your buddies? Or did you think of a brilliant suggestion during a work backlog? Or, while taking a walk in the woods, did you think, "Wouldn't it be great if they did it this way"? Well, eluldea was created for you to share these thoughts with us. elumatec and elusoft product users are often seasoned industry experts with decades of work experience that enables them to readily recognise potential for improvement when it comes to the daily use of our products. But we've found that great ideas also come from novices or from individuals who come from other industries and who alertly and intelligently analyse processes and call them into question. Thus eluldea is a platform for all of you as well. We're genuinely interested in hearing your ideas.



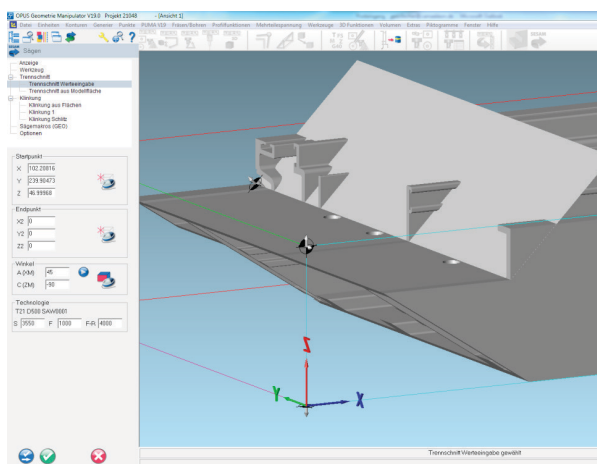
## CAMäleon: intelligent solutions for complex components

Our trade show partner CAMäleon Produktionsautomatisierung GmbH specialises in programming software for five-axis profile machining centres with heavy workpieces. CAMäleon's Puma System® optimises machining processes through path optimisation, tool optimisation, milling path optimisation, clamp management optimisation, bar optimisation and simulations based on CNC code. The programming software supports multi-head machines and helix milling and allows for measurement sensor-controlled precision milling. The Puma System offers functions that support the fulfilment of customer or order specific production requirements or solutions. CAMäleon presents Version V19 of the Puma System®.

The current version is more clearly structured and supports 3D imports with extended functions, as well as coating surface processing and the Modulworks Integration option. Modulworks offers machining strategies such as the following: hobbing, projection milling, flowline milling and rougher technologies.

Version V19 makes it easier than ever to create complex machining programs. For example, clicking on a model generates appropriate notching with the saw blade. A clearing program can be created by simply clicking on the desired model. The new "Okay and Continue" function enables the user to click on successive objects for saw cuts, and to determine the suitable saw cut via ACIS model analysis.

CAMäleon offers intelligent solutions for railroad components, polygonal facades, and curved machine components for which extremely precise machining is essential. For more information visit [www.puma-system.com](http://www.puma-system.com)



Dialog for individual cuts in the Puma System®

**Uniwave: consulting partner for PVC window and door automation.**

In the interest of strengthening its consulting services portfolio for PVC window and door automation, elumatec has concluded a partnership agreement with Uniwave Consulting GmbH, specifically for markets outside of Germany.

Uniwave provides professional consulting and auditing services, with the goal of optimising production processes for window and door automation. In other words, Uniwave helps window manufacturers to improve efficiency and reduce costs. The company also offers powerful software solutions for window and facade manufacturers. Uniwave's software portfolio offers software packages for SME manufacturers, as well as complex ERP software solutions for process oriented industrial companies.

For further information about Uniwave's products and services, visit [www.uniwave-consulting.com](http://www.uniwave-consulting.com). Uniwave's products dovetail perfectly with those of elumatec and provide customers with substantial advantages.

