



How a manufacturer communicates securely over distance with its new wide-belt sanding machine at the customer's request

# Nomen est omen

The Swiss mechanical engineering company Kündig has christened its wide-belt sanding machine for processing wood-based materials „Perfect“. The control technology is provided by SIGMATEK. So that service personnel can avoid long drives and users can be helped more quickly in the event of an emergency, Kündig is relying on the »Remote Access Platform« from the Salzburg automation provider for the first time with this machine model. With this solution a secure SSL-encrypted VPN connection from the controller, which has an OPC UA interface for horizontal and vertical communication as standard, to the cloud can be set up easily via a web interface. Therewith, the Kündig technicians open up various possibilities for supporting their customers remotely.

With the founding in 1945 in Zurich, Armin Kündig laid the basis for a company that has since become one of the leading manufacturers of sanding machines. These machines are primarily used to process wood, the solutions however, are suited for processing other materials such as metal, plastic or carbon. Kündig has subsidiaries in Germany, Austria, France and England – the machines are produced in Gotha, Germany and at the headquarters in Wetzikon near Zurich. Anyone with over 75 years of sanding experience knows the market and in which direction it is developing. And it is precisely these future requirements that Kündig shows in its machines. "Our experience is that in its processes, the trade is becoming increasingly serial and the industry increasingly individual", explains Marketing Director Sven Gutknecht using the »Perfect« as an example, which was introduced at previous year's timber industry tra-

de fair »Ligna«. With its functions, the wide-belt sanding machine for upscale interior construction addresses the needs of industrial users as well as craftsmen. Ergonomic innovations such as an operating panel that can swivel up to 90° or light weight plastic instead of heavy metal doors provide fatigue-free operation. Among the technological sanding innovations are automatic grain adjustment, as well as fully automatic sanding pressure regulation. Both functions ensure a consistently high sanding quality and simple operation at the same time.

### All Relevant Parameters with One Click

The crowning of the »Perfect« is the newly developed machine control, which relies on the hard and software from SIGMATEK and provides all relevant parameters with only one click. Not only are the underlying functions exceptional, but also their application in particular. Sven Gutknecht makes no secret that Kündig got its inspiration from the menu navigation of today's smartphones, since: "Their operation is self explanatory. Everyone knows how to exit the selected menu quickly and easily." And it is no wonder that the manufacturer integrated the 10.1" multi-touch widescreen vertically into the wide-belt sanding machine instead of horizontally as usual – so it is optically similar to



The »Perfect«, from the Swiss machine manufacturer Kündig, primarily focuses on wood processing but also provides the perfect finish for many other materials.

a mobile phone. And for those who would like a larger screen, the »Perfect« is also available with a 12" or 19" monitor. Regardless of which screen the user decides – the handling of the wide-belt sanding machine is extremely comfortable in all three diagonals. All functions are consolidated on the modern interface and saves the operator a lot time. In the past, for example, the operator had to adjust the grain by turning the grain needle, but this is now placed on the touch screen.

### Secure Remote Access

So that the service technician can avoid unnecessary trips, Kündig implements the Remote Access Platform from SIGMATEK in the current model.

Without much effort, this allows a secure SSL-encrypted VPN connection over a web interface up to the programming port of the control, which provides complete insight into the machine control. "At a glance, for example, we see which step switch condition is needed to start a specific function", explains programmer Julian Bolt, and expands: "Furthermore, we can adapt the software remotely. If an error message is triggered, we can also retrieve the diagnostic information." In addition, the VPN connection can be used to later load updated PDF files such as the electrical diagram or the operating instructions in the control. Kündig further uses the VNC remote access to train operators in the use of the »Perfect«. Since the VNC technology locally mirrors the screen content of the remote operating panel, which can also be accessed, machine operators easily can be instructed from a distance. "Our sales people also have the ability to access an active online control around the clock and anywhere in the world. This enables them to explain to potential customers - from anywhere in the world - how easy it is to use the »Perfect«",



The human-machine interface of the »Perfect« is not only optically modern. It scores with Industry 4.0 function and intuitive operation, as well as with the web and cloud-based »Remote Access Platform« from SIGMATEK for simple remote access.

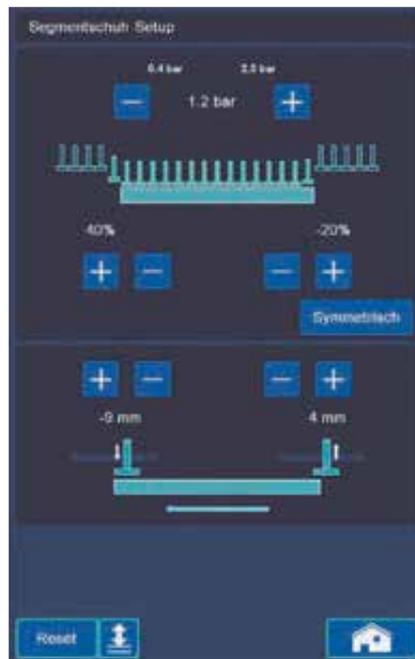
### Add-Ons Accelerate Programming

Julian Bolz developed the functions of the new sanding machine with the help of the engineering platform »LASAL«: "The object-oriented programming was an advantage, since I could use it to modularly construct the program and simulate the machine functions really well in the control." He describes the various LASAL packages and Add-Ons provided by the Salzburg automation specialist as extremely labor-saving. The PDF reader for example, can be assumed 1:1. For recipe management, only a couple of adjustments were necessary. Because every predefined software function can be specifically adapted for the customer, he could adapt them to his own project relatively easy. And when assistance was needed, a phone call or E-mail was sufficient: "SIGMATEK always provided fast and competent help", praised Julian Bolz. And what else does he fondly remember about this project? For this question, Julian Bolz does not have to think long: "The ability to completely prepare a machine using a USB stick is sensational. You plug the

### Simple web and cloud-based access



With its »Remote Access Platform«, the Salzburg automation provider SIGMATEK, offers secure remote access to machines. A secure VPN connection is made through a central interface that reaches up to the programming port of the control. This connection allows among other things, software updates, debugging and maintenance to be performed. The „Embedded Remote Access“ software installed on the CPU for this purpose or the „Remote Access Routers“ equipped with GSM or WLAN as well as firewall ensure that the very highest IT security standards are observed. For deep insights into the machine, alarm handling and data reports for predictive maintenance and production optimization, the »Cloud Logging« and »Cloud Notify« functions are provided in the browser-based web interface. With the SIGMATEK »Remote Access« app (available for »Android« and »iOS«), machines and systems can be monitored and maintained via smart phone or tablet.



Intuitively operate as with a smartphone: The Kündig developers have concrete ideas, which they integrated via multi-touch widescreen vertically in the wide-belt sanding machine instead of horizontally.

USB stick into the operating panel, connect the machine to the power supply, the specific application program is then loaded into the controller and the machine is ready to start". If a backup or exchange of the control is needed, everything can be restored within a short time with the useful function. Just »Perfect«.

(r.PA/TR)