

## Wide Belt Sanding Machines & Moeller Technology Combined



With state-of-the-art machines and system lines, much importance is placed on optimum machine design and operating concepts that support functionality and ensure intuitive handling. This in

turn places particular importance on the control circuit devices and the man-machine interface to be used. These virtually represent the face of the machine, are required to inspire trust, support user-friendly operation and are a key factor in the customer's choice. Bütfering Schleiftechnik therefore relies on Moeller HMI and control devices for all its systems.

A company based in Berkum, Westphalia, Bütfering Schleiftechnik designed its SWO series specially for solid wood sanding tasks. The use of steel contact rollers, rubberised contact rollers and the sanding pad enable workpieces to be processed in one pass of the machine. Wide belt sanding machines perform calibration, coarse, presanding and fine sanding operations with a high level of surface quality.

The machine concept is based on Bütfering's platform technology. The constant working height - with large-sized trapezoidal thread spindles - enables stand-alone machine solutions to be created or allows the systems to be integrated in machine lines. Other standards include a 2620 mm sanding belt length and integrated vacuum clamping device. Its own drive motor ensures that every unit can provide the ideal power level for the sanding tool concerned. The low-maintenance design and powerful basic equipment are the characteristic features of the SWO series that was developed as an economic solution.

#### HMI and control devices

For several years Moeller has been market leader in this field with its high quality and attractively designed RMQ-Titan control circuit devices. This series stands out for its modular design, uniform look & feel, rugged and sophisticated technology, and innovative further development. The RMQ-Titan series has been expanded with the MFD-Titan HMI and control devices that are part of the easy series.

Bütfering uses a wide range of Moeller technology consistently in its SWO series including: RMQ-Titan control circuit devices such as pushbutton actuators and joysticks, the MFD-Titan multi-function display, easy800 control relay and XStart motor starters.

With its operations worldwide, the following features were of special importance for Bütfering: MFD-Titan can display machine states and fault messages graphically. The display of length information in centimetres or inches can be selected easily on the display, as required by the location where the machine is used. Furthermore, consignment-based machines can make use of the operating hours counter integrated in the MFD-Titan. Bütfering makes full use of the device's precision and versatility. Thanks to MFD-Titan, the air sanding shoe can be applied to or removed from the sanded material at conveying speeds of 2 m/s to 13 m/s. The pneumatic dead time of the air sanding shoes can be neutralised by means of compensation calculations in the MFD-Titan device. Setpoints can be entered easily on the display, and

MFD-Titan can be expanded easily by networking easy800 when the customer requires an additional air sanding shoe. The same applies to the addition of further functions.

#### Future-proof automation solutions

With its easy control relay range and associated MFD-Titan multi-function display, Moeller is already setting standards. Thanks to their new and extensive range of functions, easy control relays can be used as a genuine alternative to conventional PLCs in price sensitive machine and system building applications. After all, Moeller control relays now cover all the tasks required for low-complexity and medium-complexity automation solutions that were previously the traditional domains of PLCs. Whilst MFD-Titan and easy800 have the same range of functions, the full graphic MFD-Titan mini controller combines HMI and controller

## CONCLUSION

Martin Settele, SWO project manager at Bütfering Schleiftechnik, had this to say: "As our machines are used worldwide, we ensure that machine states are displayed graphically. This minimises costs for the operator in the event of faults or refitting, and graphics can be understood intuitively worldwide. In the event of a fault, a graphical message is far more effective than a text message. For this price range and with this level of functionality, the MFD-Titan was the only controller solution suitable for us on the market. The visualization system on the MFD-Titan is also easy to program, and the user just has to enter parameters. We were also particularly attracted by the price/performance ratio of the hardware and software."



functions in one compact device. The graphic display (IP 65) with 132 x 64 pixels comes with a backlight that can be activated as required. MFD-Titan is designed for industrial applications (in accordance with IEC/EN 60947), and can thus be used in both harsh environments and in outdoor applications.

Up to eight MFD-Titans or easy800s can be networked together using easy.NET for more complex tasks. Users can thus implement applications with up to 320 I/O points. MFD-Titan offers open communication options and complies with a wide range of standards: AS-Interface, Profibus DP, CANopen, DeviceNet, serial interface, Windows DLLs, OPC. The MFD-Titan can therefore also be integrated in larger automation solutions.

## THE COMPANY

Bütfering Schleiftechnik GmbH has its headquarters in Beckum and was founded in 1946. The company now belongs to the HOMAG Group. Woodworking plants all over the world use sanding machines made by Bütfering. The company produces wide belt sanding machines for virtually any application field. This ranges from inexpensive entry level machines to fully fitted special models and product-specific special machines with sanding functions for calibration, fine finishes and varnishes. The sanding machines are manufactured in a 18 000 square metre production facility in Beckum.

