

Precision breeds Success

WINTERSTEIGER AG - Since its founding in 1953, the Upper Austrian company has concentrated on niche markets in the area of manufacturing machines for series production. Today, this company is an international leader in three very different fields: **SPORTS, ENGINEERING, and SEEDMECH.** With B&R as a new systems supplier of drive and control technology, WINTERSTEIGER has been able to secure the technological lead they have achieved thus far.

SPORTS Division

Victories in winter sports seem to be just a matter of course for Austrians. However, the quality of the materials used isn't just important to the success of top athletes; contributing to the enjoyment of the general public on the slopes is a major factor as well. Their systems allow WINTERSTEIGER to stand solidly behind this quality. Their product spectrum is composed of fully-automatic service stations, base and edge grinding machines, base repair and binding adjustment devices, and even waxing machines. This allows WINTERSTEIGER to provide a complete solution for ski and snowboard dealers, lenders, and service stations so that winter athletes can enjoy their experiences while getting service from a single source. Even the official Austrian Ski Association and many other international ski associations rely on the high-precision service machines from

this systems manufacturer.

The "discovery" service system was developed jointly with B&R and successfully presented at the ISPO (international trade fair for winter sports equipment and fashion) in Munich in February, 2005.

This revolutionary new machine concept - currently the most innovative on the market - can handle every aspect of caring for skis and snowboards. This includes the fully-automatic grinding and finishing of edges and bases. The discovery is distinguished by its laser measurement technology for optimized grind parameter configuration, Ceramic Disc Finish technology (for precise edge geometry), and countless other features that were able to be realized together with the most modern controller, operation, and drive technology.

The Technology

"As the successful market introduction of this new system has shown, the uniform system integration provided by B&R allows us to implement new innovations at





In 2004, WINTERSTEIGER AG earned group revenues totaling €67.6 million, an increase of 13.1% over the year before. The largest share of that revenue came from the Sports division with €40 million. Founded in 1953, the company has 13 subsidiaries and 62 representative offices worldwide. Exports to 132 countries made up approximately 85% of the total revenue share. WINTERSTEIGER AG has 495 employees, 346 of whom work at the headquarters in Ried im Innkreis in Upper Austria. This innovative company works together with leading universities and research facilities, investing 5% of its revenue into research and development.

the highest levels,” said Josef Hainzl, in charge of electrotechnical issues at WINTERSTEIGER.

B&R’s positioning technology uses complex axis and drive sequences (direct control of DC motors) that make it possible to develop a modular machine design that can be tailored to the individual needs of the customer. This provides the maximum advantages to all users. Power Panel devices, System 2003 controllers, and I/O components from B&R allow a total of five modules to be combined, similar to Plug & Play. This includes the pre-grinding module, the stone/disc module, and a finish module as well as a conveyer magazine whose job is to take care of efficient handling both at the beginning and at the

end of the automated module line. These magazines can handle up to 16 skis and process them fully automatically.

These modular systems can be configured independently thanks to the flexible application software provided by B&R. Time-consuming parameter setting is a thing of the past when switching drives, sensors, etc.

All sequences are handled reliably by the hardware and software configurations, which can also be maintained remotely. For example, skis or snowboards with binding can be handled using the revolutionary loading system. Sixteen integrated clamping cylinders keep the skis and snowboards in place while they are being worked on, allowing them to be guided through the system with precision. Achieving the optimal edge geometry and base structures posed an extremely high demand. The discovery system is able to handle and per-

fect any pair of rental skis, customer skis, or racing skis as well as any snowboard.

Engineering Division

The Engineering division allows WINTERSTEIGER to compete in totally different markets. Once again, B&R system technology is used to manufacture series machines. The highest efficiency and progressiveness have proven themselves again and again in practice. The showpiece in the Engineering division is the new DSG sonic thin-cutting frame saw, which sets new standards in the production of high-quality lamellas. The automation of the thin-cutting frame saw boasts unparalleled features in the areas of positioning (loading coupling via an electronic cam profile), network capability, and diagnostics (event logbook). The solutions for the thin cutting of wood by WINTERSTEIGER are used in producing lamellas of 1.5 mm or thicker. Customers include companies in the flooring industry, door and window production, multilayer board creation, pencil and dowel production, musical instruments, and



A discovery service system with one pre-grinding-, two stone/disc-, one finish module and two automatic conveyer magazines.



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WINTERSTEIGER AG

many other woodworking industries. The approximately 1,000 thin-cutting frame saws already sold attest to the know-how accumulated over the decades.

Seedmech Division

The Seedmech division provides solutions for the entire process of agricultural field testing. In this division, the product spectrum ranges from plot combines, plot seeders, laboratory equipment, and other equipment for rating, fertilization, and plant protection.

This allows the research, growth, inspection, and breeding of agricultural cultivations to special cultivations at the highest level.


These three divisions make WINTERSTEIGER AG a top international company

whenever innovative machine manufacturing is needed.

A Strong Partner

The pioneering discovery and DSG sonic machines are typical examples of successful cooperation between two technology leaders. “We needed an automation partner that was able to deliver advanced systems for visualization, control, and motion from a single source”, explained Josef Hainzl. “The product lines offered by B&R make it possible for us to reduce the enormous number of component parts and the costs that result from them. Another decisive factor for our cooperation was also the unequaled technology when it came to software creation. This technology allows us to design, program, and configure projects using a universal tool”, added the engineering specialist. Josef Hainzl is refer-

ring specifically to the integrated software development environment B&R Automation Studio, which is the perfect choice for creating automation projects of any size.

To secure their technological lead, WINTERSTEIGER relies on innovative partners who are pioneers in their industries and who are already incorporating the trends of tomorrow. With B&R, WINTERSTEIGER has found a partner whose open systems are able to provide the most flexibility possible, eliminate dependencies, and respond quickly and professionally to individual customer needs. Reduced to its simplest form: Perfection in Automation. 

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WINTERSTEIGER solutions allow fast, easy and precise handling of all requirements in the area of ski service.