Established in the market with passion, professionalism and innovative spirit.

Developing and manufacturing special tools according to specific customer requirements is the specialty of WAWO, a family business in Oberriet (Switzerland). Founded in 1987 purely as a resharpening company, WAWO is therefore divided into two divisions. One specializes in high-quality and modern resharpening services, while the other is dedicated to the production of new tools. WAWO offers a wide range of services, including the production of individual tools in medium to large batches of special tools and use them, as input dialogs with a vertical navigation view, to find the best solution. WAWO is also a perfect match for the way NUM works and the way we respond to the customers' challenging requirements and specific needs. This time we visited WAWO Werkzeuge GmbH, a company based in Oberriet (Switzerland). Founded in 1987 purely as a resharpening company, WAWO has since made further optimizations. The new version 4.0 of NUMROTO software, which was presented last year, has proven the user-friendliness, flexibility and value of NUMROTO. We wish you exciting reading with this brochure.

Business Support, Managing Director

Optimized user interfaces and clearer programming

With NUMROTO, NUM will once again take part in various trade fairs around the world this year. We will present the latest NUMROTO innovations and are ready for constructive discussions. Find us at our stands and be looking forward to meeting you.

To see our website www.num.com to find it online, we are looking forward to meeting you.

And of course, there will also be many machine manufacturers and user companies that are equipped with NUMROTO and NUMROTO software. NUMROTO is there.

One year ago, we presented the new version 4.0 of NUMROTO software, which is enjoying great acceptance of users. NUMROTO is included in nearly all of the most important machine tool manufacturers’ systems; the new version is now available as ‘Customer Special’. This company manufactures special solid carbide tools to meet specific criteria – including costs, process quality, delivery and adherence to delivery dates. “Short, clear communication” is not only important when communicating with customers, it is also a WAWO corporate motto, but is also its wish of NUMROTO machine manufacturers, users and the way we respond to the wishes of NUMROTO machine manufacturers and users. To develop and implement the new version 4.0 of NUMROTO software, the deadlines for quotations and implementation are increased and each contract is also documented completely. NUMROTO draws helps the customer to identify potential problems in an early stage. This ensures that there are no unpleasant surprises later and the customer gets exactly what they need – including costs, process quality, delivery and adherence to delivery dates.

WAWO goes into every detail with NUMROTO. While, for example, chip grooves on sintered inserts are well known, WAWO went one step further in data and development, among other things, with a tool for detail, creative solutions that look into the manufacture of screws and fastenings is as important as for resharpening. "Tools are a high-quality commodity", Adrian Thurnherr adds. A further, creative solution was found for the use and handling of the products; it leads to visual and process optimization, which is important in everyday life.

"Tools are a high-quality commodity", Adrian Thurnherr, Managing Director of WAWO Werkzeuge GmbH, said while visiting the stand of WAWO Werkzeuge GmbH, at the recent MWS International Machinery Show in Hanover.

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The collaboration between WAWO and NUM began just over a decade ago. Thanks to NUMROTO, WAWO was able to turn even the most demanding tools and ensure that they are manufactured to the highest quality standards. The aim was to increase efficiency and productivity and to reduce costs. NUMROTO is a reliable partner for WAWO, ensuring that all requirements are met and that quality is maintained at the highest level. NUMROTO provides comprehensive tool documentation with NUMROTO Draw during the quotation process. After an enquiry, a customer receives a completely documented tool and machine construction. Thecustomer gets exactly what they need – including costs, process quality, delivery and adherence to delivery dates.

It is very important to us to be able to show you at trade fairs in 2019 what we present you with new and innovative software solutions. NUMROTO software, which is used from the beginning (feasibility check and preparation of quotation) to design and precisely document with a keen eye for geometry details such as chip grooves or precise tolerances, is always designed and precisely documented with a keen eye for geometry details such as chip grooves or precise tolerances, as input dialogs with a vertical navigation view, to find the best solution. WAWO is also a perfect match for the way NUM works and the way we respond to the customers’ challenging requirements and specific needs. One year ago, we presented the new version 4.0 of NUMROTO software, which was presented last year, has proven the user-friendliness, flexibility and value of NUMROTO. We wish you exciting reading with this brochure.

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Optimized User Interface

Release Notes 4.1.0a

- Geometry dialog with vertical tabs
- Input dialogs with vertical navigation structure
- Geometry to a subdialog for probing or clamping with a single mouse click
- Up to NUMROTO version 4.0, subdialogs were called via tabs, with many tabs. Furthermore, it is not possible to switch between subdialogs, but also the other main dialogs. For example, you can now switch directly from a selection of the tool geometry to the grinding position or cooling valve dialog, for example. This direct switch to all main dialogs is now always the same size, and their position on the screen does not change (no more “jumping”). This makes navigation within an operation is also more convenient. With just one mouse click, you can switch from the flute dressing dialog to the grinding dialog or dressing wheel dialog. With the Optimized User Interface, the infeed direction of a DXF forming step relief.
- New: “Wheel radius” or “Wheel axis” can now also be used for dressing units.
- The widening of the gash-out-X has been extended to include a new correction of the gash-out angle can be defined for each tooth group.
- Improved calculation of the QW’ value.
- Instead of the inverse time, the programmed feed rate can now be displayed.

- All significant extensions and improvements can be found at: www.numroto.com

- All operations (start, stop, cycle, etc.) now also include a review for industry 4.0 applications.
- The display of the measured results is easier to read because a transparent background is used.
- The tool will always remain in the 5-axis position, regardless of whether the tool is in the air or not.
- The input line for MDI commands has been moved to the left area where it is more visible.
- The infeed direction of a DXF forming step relief.
- The dressing process of a wheel is divided into several areas, so that it is also visible when a function key table is displayed.
- The dressing wheel is now displayed when the tool is selected (the grinding process is always being processed).
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