THE SCHWANOG NEWS FOR CUSTOMERS, **EMPLOYEES, AND FRIENDS OF THE COMPANY.**

PAGE

02

Training concept for all global subsidiaries! Providing all employees with simultaneous access to information is one of the critical success factors of our time ...

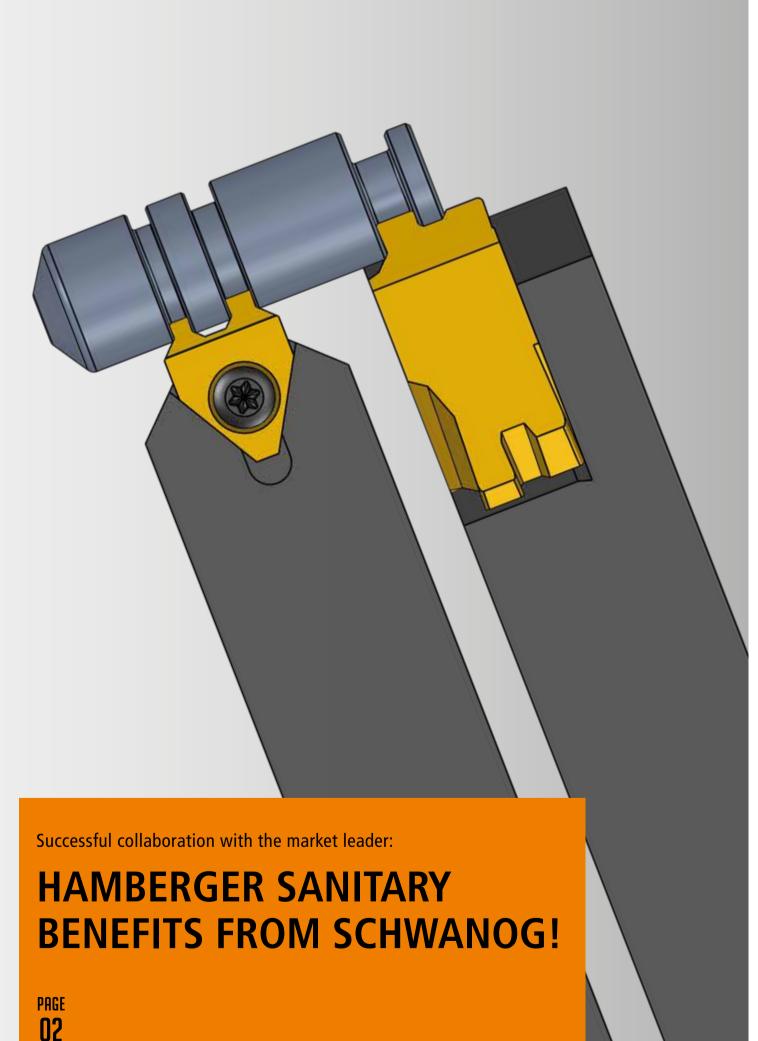


PAGE

03

Webinar on form milling sees high turnout! On October 26th, 2023, it was time again. Schwanog invited customers and interested parties to the webinar on form milling ...







EDITORIAL:

Dear business partners,

Another turbulent year is ending. Once again, we had to overcome extraordinary challenges to stay on course. The tense political situation around the globe makes it even more crucial to motivate our employees to think positively.

With the global training concept for our employees, we are successfully promoting team spirit, imparting technical knowledge, and increasing qualifications. Please read the article on page two.

With our cover story, we would like to draw your attention to our project report with Hamberger Industriewerke, where our tooling solutions achieved impressive productivity increases.

On page three, we look back on another successful webinar on form milling we held on October 26th. For all customers who couldn't find the time, it was another webinar with a high attendance and full of interesting contributions, suggestions, and discussions.

We pay great importance to our team spirit. Thus, we are delighted to use this issue to introduce you to new employees in Sweden and the USA and a jubilee.

On page four, we look forward to 2024 and provide an overview of all the global trade shows and hope to see you there in person.

Wishing you a Happy Holiday season and a peaceful and prosperous New Year.

Clemens Güntert CEO



Successful collaboration with the leading European manufacturer:

HAMBERGER SANITARY BENEFITS FROM SCHWANOG TOOLING SYSTEMS!

Hamberger Industriewerke GmbH, based in Stephanskirchen near Rosenheim, was founded in 1866 and specializes in the production of flooring and toilet seats. Today, the medium-sized family business is managed by the fourth and fifth generations, Peter Hamberger and Dr. Peter M. Hamberger.

The company is on course for success with four divisions - Hamberger Flooring, Hamberger Sanitary, Hamberger Retail and Hamberger Agriculture and Forestry – and more than 1,000 employees worldwide.

Hamberger Sanitary - Europe's largest manufacturer of toilet seats

Fifteen patent-pending innovations, prestigious design awards, and an impressive product range are a testament to the passion with which Hamberger Sanitary transforms the toilet seat into something extraordinary. The right solution for all your needs - this is the motto that drives the creative think tank at Hamberger Sanitary to come up with technical innovations, new designs, and ingenious details for greater comfort and hygiene.

The advantages:

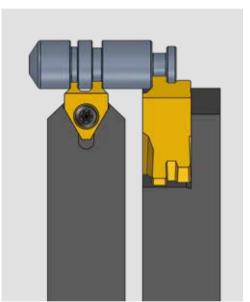
- □ Lower tool costs with a customer advantage of between 30 % and 75 %
- □ Average tool life increase of more than 230 %
- ☐ Shorter delivery times of 3 instead of the previous 10 weeks
- □ Cycle time reduction of approximately 20 % -13 seconds instead of previously 16.3 seconds

Continuous innovation, consistent customer Given these results, both companies have focus, and uncompromising commitment to quality have made Hamberger Sanitary the largest manufacturer of toilet seats in Europe.

agreed to expand their collaboration to other applications.



From left to right: Paul Isaak (production employee), Alexander Munschau (shift supervisor), Thorsten Schneider (Schwanog sales representative)







Making quality one of the core values

The company's mission statement, "We create quality of life", refers not only to products but also to all areas of the company, including production processes. Hamberger Sanitary focuses on continuously optimizing production processes while maintaining superior quality. The company's commitment to high quality brought Hamberger Sanitary and Schwanog together in 2019.

Schwanog form tools, reducing cycle times and increasing tool life

Robert F., the head of the project, commissioned Schwanog to substantially improve the processes of a turned part made from 1.4305 / 303 stainless steel for a production batch of 1.5 million parts.

The turned part, "Pin C45", had previously been machined using a standard contour grooving-turning tool from a competitor. The Schwanog team recommended a solution using insertable form tools to optimize the production processes significantly. Robert F., the head of the project, was thrilled with the results, which significantly exceeded his expectations.

Robert F., project manager explains:

"The collaboration with Schwanog has made us more efficient in many ways and has strengthened our competitiveness. We were able to optimize our "Pin C45" product due to the use of a new tool.

Production involved the principle of "parting off with two tools", which lead to increased tool wear. By replacing the standard grooving tools with Schwanog's form tools, we successfully reduced cycle times and increased tool life. Furthermore, Schwanog's form tools have a much shorter turnaround time of 2-3 weeks.

A test with our C-Pin's revealed an effective tool life of 40-60,000 parts compared to 10-20,000 parts with a previously used tool."

Providing technical expertise for all global subsidiaries:

SCHWANOG'S TRAINING CONCEPT PROVES TO BE A SUCCESS!

Providing all employees with simultaneous access to information is one of the critical success factors of our time. That is why we have made this technical knowledge transfer integral to our 'Schwanog28' strategy.

Training is conducted via Microsoft Teams and aims to continuously improve the technical knowledge of our employees worldwide while also allowing them to learn directly from each other.

Interactivity is the magic formula our global teams are using to discuss specific topics. The focus of our last meeting in November was form drilling with insertable form tools and solid carbide drills. Employees not only share technical facts but also customer-specific applications in the respective markets, thereby enhancing their knowledge.

Training actively promotes cohesion and team spirit, making this format a significant success for Schwanog.



SCHWANOG NEWS. PAGE 03

Schwanog form drill for improved productivity:

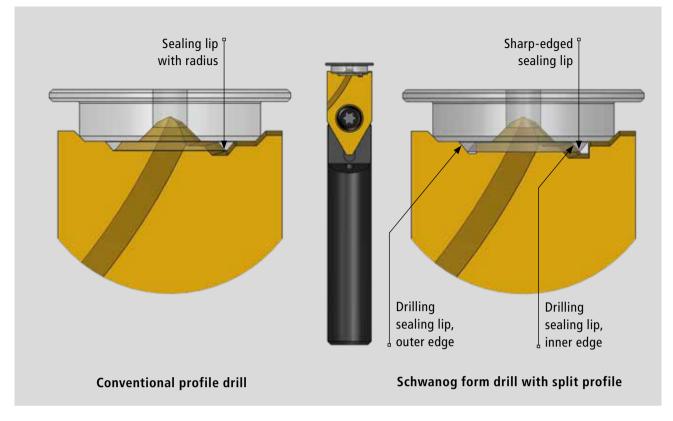
LEFT AND RIGHT-HAND CUTTING EDGES WITH DIFFERENT PROFILES!

A sealing lip produced using a conventional profile drill doesn't establish a sharp edge at the tip of the sealing lip. The reason being is that the drill always carries a production-related radius in this area. (see left view)

Establishing an absolute sharp edge at the tip is possible when splitting the profile of the form drill. The left-hand cutting edge is individually ground differently than the right-hand cutting edge (see right view), which means that the tip of the sealing lip will be sharp-edged.

Due to the split profile directly on the form drill, no additional tool is required to establish a sharp edge.

This solution can be applied successfully to many demanding and complex drilling operations.



Proven format in our marketing mix:

FORM MILLING WEBINAR SEES HIGH TURNOUT!



Once again, on October 26th, 2023, Schwanog invited customers and interested parties to the new form milling webinar, which attracted an excellent three-digit number of participants.

Milling with Schwanog tooling solutions has become an enormous success in recent years as form milling can be applied to many applications such as gears, grooves, and to special forms.

We were able to show participants, based on various real examples, how to optimize their production processes and increase productivity. The webinar focused specifically on the question of whether to use form milling with interchangeable inserts or a solid carbide milling cutter.

We would like to thank our colleague and expert, Ralf Lang, for his excellent presentation and you for your valuable contributions.

10th year anniversary:

CONGRATULATIONS TO URTE THIERINGER-LAUBLE ON HER WORK ANNIVERSARY!

On her 10th work anniversary, we organized a small party to celebrate this milestone with our long-time colleague Urte Thieringer-Lauble. Friedrich Klemmer (Team Manager) and Carsten Schwabe (Assistant Production Manager) awarded her an anniversary certificate and a gift.

Ms. Thieringer-Lauble has already gained a wide range of experience in her professional life. After working in microchip quality control, medical part production, and an apprenticeship as an office clerk with subsequent professional experience.

She joined the Schwanog team around ten years ago. Urte Thieringer-Lauble's role in logistics covers a wide range of tasks, including inspection of coated tools, packaging work, commissioning using the Hänel high-speed Rotomat storage carousel and laser marking.

Ms. Thieringer-Lauble also enjoys a wide range of interests in her free time. She enjoys painting and riding her motorbike, and when time allows, she is still active as lead singer in a band and is committed to animal welfare and environmental protection.

We look forward to many more years of collaboration and wish Ms. Thieringer-Lauble all the best for the future.



From left to right: Carsten Schwabe (Assistant Production Manager), Urte Thieringer-Lauble, Friedrich Klemmer (Team Manager)

A breath of fresh air in Sweden:

FREDRIK DAHLKVIST TAKES OVER **DIRECT CUSTOMER SUPPORT!**



Fredrik Dahlkvist can be reached at:

Mobil: +46 734 47 21 00 E-Mail: fredrik.dahlkvist@schwanog.com

In recent years, Sweden has become an important market for Schwanog, offering tremendous potential for our tooling solutions and to strengthen these growth opportunities we appointed Fredrik Dahlkvist, an experienced specialist who joined us October 1st, 2023.

With 18 years of experience in tooling solutions Fredrik has extensive machining know-how and in-depth knowledge. He completed training at Schwanog's headquarters in October with great commitment to be well-prepared for his new role.

Fredrik and his family live on an idyllic farm in southern Sweden. He spends most of his free time in the forest, chopping trees. He is a big soccer fan and passionately follows the matches of his favorite club, Malmö FF.

The entire Schwanog team wishes Fredrik Dahlkvist much success in his new role.

Gaining momentum in the USA:

TRACY NICHOLS **JOINS SCHWANOG!**



Tracy Nichols can be reached at:

Mobil: 224 828 5721 E-Mail: tracy.nichols@schwanog.com

Tracy Nichols joined Schwanog USA in October 2023 to take on the role of OEM Account & New Product Development Manager for CAM multi-spindle automatics and rotary transfer machines with the focus on custom profile form tool systems to support existing and new Schwanog customers.

We are excited to welcome Tracy Nichols as his extensive experience in developing cutting tools will help expand our product lines in the multi-spindle automatics and rotary transfer machine segments.

Tracy will not only bring his expertise in tool development to the team, but also his experience in implementing precision machining processes in complex production environments for automotive manufacturers and suppliers. Due to his knowledge, he has an excellent understanding of our customers' expectations and requirements enabling him to hit the ground running effectively. Tracy Nichols is based out of Nashville, Tennessee. He and his wife Embry have been married for 34 years. He has two children and is a proud grandfather, focusing on his family in his free time. He is passionate about supporting children and young people in Sierra Leone, West Africa.

We wish Tracy all the best and much success in his new role at Schwanog.

Our trade show teams in action worldwide:

2024 TRADE SHOW PREVIEW

Germany

Jobs for Future March 14th - 16th, 2024,

Hall: D, Booth: D286

Villingen-Schwenningen,



AMB September 10th - 14th, 2024

Stuttgart Italy

FORNITORE OFFRESI February 15th – 17th, 2024 Erba (CO)



Mecspe 2024 March 06th - 08th, 2024, Bologna



France

SIMODEC

March 04th - 8th, 2024 La Roche-sur-Foron,



Austria

Intertool

April 23rd – 26th, 2024 Wels, Hall: 20, Booth: 1014



Great Britain

MACH 2024

April 15th - 19th, 2024 **NEC Birmingham UK** Booth: 20-489



USA

IMTS 2024 September 9th - 14th, 2024



McCormick Place, Chicago, IL, West Building, Level 3, Booth 432061

Canada

MMTS 2024 June 18th - 20th, 2024 Palais des congress

de Montreal, Montreal,

México

China

QC, Booth 826

EXPO Manufactura January 30th-February 1st, 2024 Citermex, Monterrey, N.L.



Hall D, Booth 2107

INTERNATIONAL MACHINE TOOL EXHIBITION February 28th -



March 02nd, 2024 China, Hall: 3, Booth: 3F116

CNC MACHINE TOOL FAIR April 08th - 12th, 2024 China,

Hall/Booth: W4-B186





Dear business partners,

In a world that is spinning ever faster, moments of peace and reflection are even more precious. 2023 was an eventful year with many exciting and moving moments. We are grateful to have experienced this time together with you and are looking forward to a successful 2024. We wish you a relaxing and joyful holiday season and good luck and health for the New Year. Have a good start and we look forward to continuing our successful cooperation.

Merry Christmas from the entire Schwanog-Team





Schwanog LLC 1301 Bowes Road, Suite A · Elgin, IL 60123 Phone: 847-289-1055 · Fax: 847-289-1056 info.usa@schwanog.com · www.schwanog.com