

THE SCHWANOG NEWSPAPER FOR CUSTOMERS, EMPLOYEES AND FRIENDS OF THE COMPANY.

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EDITORIAL:

Dear business partner,

In our first edition of Schwanog News for the new year, we would like to draw your attention directly to a customer project which we present on page 2. It once again shows the excellent potential for part cost reduction when, like our client Frebel+Obstfeld, you are open to new ideas, launching projects and implementing them successfully with us.

To make this possible, we are continuously building the Schwanog team, hence we are delighted that our sales team has recently welcomed the addition of three new employees. You can find a short portrait of the new personnel on page 4 of this newsletter.

Training our own experts is still the key task that will enable us to grow proficiently in the future with a qualified team. To achieve this, we have invested in a new training center for our technical staff. The idea that training can also be fun is proven by the impressions of the new training center in the report on page 4.

The roughing insert from Schwanog is simple but highly effective. Rough not pre-turning is the motto, which quickly reduces machining times. You will find more about this topic on page 3.

A look back and an overview of the results of the Schwanog Strategy 2025 can be found on page 4 of this newsletter. We are happy that we are able to consistently achieve our goals and targets thanks to your partnership. The year 2018 was also marked by strong growth in all major markets.

As the new year moves on, we would like to wish you Lots of success and many joint projects packed with productivity!

Clemens Güntert Managing director



SCHWANOG NEWS. PAGE 02

The latest on polygon turning and form drilling:

FREBEL+OBSTFELD PROFITS FROM SCHWANOG TOOLING SOLUTIONS WITH INSERTABLE TOOLS!

Perfect contour, precisely manufactured. Frebel+Obstfeld GmbH was founded in Altena in 1951 by Friedrich Obstfeld and Wilhelm Frebel in Altena, and since then, has continued to develop and expand. For over six decades, the company has been manufacturing complex turned parts and tubular metal parts at the highest technical level. With around 120 high-performance, efficient production machines, Frebel+Obstfeld offers its customers a comprehensive product portfolio of precision parts at internationally competitive prices.

Frebel+Obstfeld is one of the few production companies in the industry that is able to produce highprecision turned parts and to machine and form tubes. Our products can be found in a wide range of applications. In addition to automotive and industrial technologies, we are a trusted partner in energy and electrical engineering, medical, plastics, mechanical, as well as many other industrial sectors.

Precision turned parts with a diameter ranging from 2 to 60 mm.

In the precision turned parts sector, the company produces complex turned parts with an elaborate design, long turned parts and turned parts made from wire on coil-fed automatic lathes.

Precision tubular parts of the highest quality.

Unlike many of its competitors, Frebel+Obstfeld does not only produce turned parts, but also tubular parts. These include precision tubular parts, tubular rivets, tubular bends, multi-collared parts and tube sections. This competitive advantage means the company can always offer its customers the most precise and efficient production process, thereby creating real added value.

The requirements of productivity and top quality.

Top quality and productivity are the requirements that the company sets both for itself and for its partners and suppliers. The lean, efficient and adaptable organization, with clearly defined competencies and responsibilities, is therefore able to implement projects quickly and directly. The best example of this is the collaboration with Schwanog as a manufacturer of insertable tooling systems. Frebel+Obstfeld has been working with Schwanog since 2016.



Carsten Obstfeld (left) in conversation with Schwanog employee Mr. Hönle (right).

The current projects polygon turning and form drilling are the best examples of how a close partnership and a high level of competence can bring about significant cost savings.

Project 1: Schwanog polygon turning with insertable form tools.

Until now, brazed polygon cutters were used. The disadvantage of this method was the comparatively long setup times, as the cutters needed to be partially reworked during set-up, to optimize concentricity.

Mr. Hönle, supporting technical sales of Schwanog at this customer, assessed the situation, documented the key data and coordinated it with the staff in our headquarters in Obereschach.

The solution:

Schwanog developed a polygon holder carrying insertable form tools which were an immediate hit with CEO Carsten Obstfeld.

Project 2: Schwanog form drilling – straight into solid material - of course!

In the past, the production process for the bore of a precision turned part used three tools. First, a form drill produced the core bore, a second drill the geometry and a third tool established the beveling. All three of these tools were ground in-house.

Thanks to the first-class experience with Schwanog, Mr. Hönle was asked to find a more efficient solution for this scenario as well.

The solution:

Schwanog developed an insertable form drill with which the entire contour was drilled into solid material using a single tool.



The advantages:

- ☐ Substantial setup time reduction due to simple tool set-up
- $\hfill\Box$ Faster tool changeover in the machine
- ☐ Increased tool life with Schwanog insertable tools
- ☐ Significant part cost reduction



The advantages:

- ☐ Instead of three, only one tool is used
- ☐ The tooling and set-up costs for two tools are completely eliminated
- ☐ Triple the tool life of the Schwanog form drill versus the old solution
- In the case of wear, only the insertable tool is replaced - quick and easy in the machine

CEO Carsten Obstfeld was impressed by the Schwanog solutions and by the entire project development. Encouraged by the results, Frebel + Obstfeld already has further projects in sight for 2019 - and we thank Frebel + Obstfeld for its trust in Schwanog!

"My thanks go out to Mr. Hönle and the Schwanog team, who managed to develop such topnotch and professional solutions in such a short time, which result in significant advantages in our production in every respect."

CEO Carsten Obstfeld, Frebel+Obstfeld GmbH

SCHWANOG NEWS. PAGE 03

Rough not pre-turning is the motto:

MAXIMUM POSSIBLE MATERIAL REMOVAL WITH THE SCHWANOG ROUGHING TOOL!

With most parts, it makes sense to remove as much material as possible prior to the actual finishing process.

Schwanog offers a perfect solution with its 15mm-wide insertable roughing tool with a sintered chip breaker. In the event of wear, there is no need to replace the entire tool, instead, only the insertable tool is changed.

The results are impressive. Part cycle times are reduced down to the two-figure range, which leads to significantly lower part costs. And the sintered chip breaker facilitates a better chip flow and optimized chip removal. Use our roughing tool to reduce your part costs in a simple and efficient way.

The advantages:

- ☐ Better chip flow and optimized chip
- □ Substantial part cycle time reduction
- ☐ In the case of wear, only the insert is replaced, not the entire tool
- □ Significant part cost reduction
- Available with or without coating



Training at top level:

NEW TRAINING CENTER INAUGURATED FOR APPRENTICE TECHNICIANS!

Schwanog has set itself the ultimate goal of giving its industrial apprentices the best training, mentoring and support. To do so, the training area was restructured as part of the building extension.

Apprentices can now learn all skills on both a Weiler lathe and on a Micron milling machine, allowing them to forge a career with Schwanog later on as highly trained experts.

In the sales area, the training of industrial clerks with the supplementary qualification of International Business Management has long been a tradition at Schwanog. Thanks to the strong globalization of business processes, exciting challenges await those who complete this training, including work placements at the Schwanog subsidiaries in China, the USA or France.

In January, Lara Durli successfully completed her training as an industrial clerk with the supplementary qualification of International business management, and in the future, will work for Schwanog in the sales and marketing area. Joel Fochler also passed his apprenticeship as a machinist and will strengthen the team in the Schwanog grinding center on Haas grinding machines. The photo shows the employees receiving their certificates — we would like to congratulate both on their efforts and look forward to successfully working with them in the future.

Schwanog is currently training five apprentices as machinists and industrial clerks. In September 2019, another three apprentices will commence their training. Talented young people with an interest in both professions can apply to Schwanog for 2020. You can find further information on apprenticeships at schwanog.com and on the social networks.



Instructor Ronny Thome with the apprentice machinists



Lara Durli and Joel Fochler receiving their certificates with Mr. Güntert, instructor Petra Grade and instructor Ronny Thome

Available now online and as a brochure:

ALL TOOLING SOLUTIONS FOR ESCOMATIC MACHINES!

Due to high customer demand we have expanded our program for Escomatic machines and can now present complete solutions for the series New Mach and D2/D4/D5/D6.

Special holders, for the left and right-hand, are available for each assembly, and have been designed and developed for this purpose. To do this, we have used our DCI and WEP system as the basis and can now offer a perfect solution for every application.

All solutions together with technical data, dimensions and detailed information are available immediately as a brochure and online.



Investment in customer support and sales:

THREE NEW EMPLOYEES JOIN THE SCHWANOG TEAM!

We are delighted that our sales team has been expanded both in terms of quality and quantity. New to our team are Armin Jaud, Manuel Kohn and Klaus Rosenfeld. With our new colleagues, we can strengthen our OEM Management, technical inside sales and in the sales areas of northern Germany and Denmark. Hence we are also successfully implementing our ambitious goals in the sales area as part of our Schwanog 2025 development program.



Armin Jaud
OEM Management

Armin Jaud understands the industry and its challenges thanks to over 30 years of experience in all its facets. After successfully completing his studies in mechanical engineering, Mr. Jaud worked in NC programming and tool procurement before obtaining further valuable experience as a project engineer for tooling equipment and followed by over 25 years in technical sales and tool applications. We are delighted that Mr. Jaud joined us in October 2017 to support Schwanog's OEM business.



Manuel Kohn Technical Inside Sales Czech Republic and Slovakia

Manuel Kohn joined our team in June 2018, and looks after our customers in the Czech Republic and Slovakia, and supports his outside sales team with plenty of motivation. After his apprenticeship as a machinist on lathe and milling systems, Mr. Kohn worked as a machine/tool setter and programmer of CNC lathes and swiss-type automatic lathes. He graduated as a state-certified technician at the School of Precision Engineering in Schwenningen. After this training, Mr. Kohn was able to obtain further valuable practical experience in project management of multi-stage manufacturing projects.



Klaus Rosenfeld

Outside Technical Sales Northern Germany and Denmark

Klaus Rosenfeld brings with him all those qualities which are essential to give qualified advice that will optimize productivity for our customers. After his apprenticeship as a lathe operator, he underwent further training to becomean NC Specialist (Chamber of Trade) and a major in technical management. Over the past few years, the programming of CNC post-processors and the development of machining processes, mainly on lathes, were the main focus of his work. Joining Schwanog in July 2018, Mr. Rosenfeld has quickly gained the trust of his customers due to his solid training and long experience.

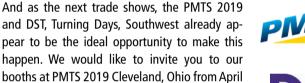
Schwanog exhibits at the first trade show of 2019:

INTEC LEIPZIG OFFERS STRONG POTENTIAL AND HIGH DEMAND!



The INTEC in Leipzig was the first trade show of 2019 for Schwanog and a very successful one. We found the good preparation of the visitors, with their precise project queries, to be extremely interesting. This put our team in a good position to provide highly targeted advice and to demonstrate solutions for part cost reduction already at the booth

There was also a high demand at INTEC for the insertable and solid carbide drills and for the product line for Escomatic machines which amongst customers with these machine types was fantastic. Thus the unanimous conclusion was: "Let 2019 continue like this!"





PRECISION MACHINING TECHNOLOGY SHOW Booth 4009



DREH- UND SPANTAGE SÜDWEST Hall B I Booth 132

Schwanog strategy 2025:

2-4, 2019. Booth: 4009 and at DST Villingen-

Schwenningen from April 10 to 12, 2019.

FROM THE MEDIUM-SIZED ENTERPRISE TO THE GLOBAL PLAYER!



With a sound strategy of healthy growth, Schwanog continues to develop into a stronger global player in the market for highly economical and efficient tooling solutions.

Our prime focus is on vigorous growth and on making optimum use of our know-how and resources within the respective market. One key element in making this happen is our production strategy. This envisages the initial establishment of distribution centers, and in due course, of small, high-performance production units within the respective foreign markets. The global production center in Obereschach, Germany, will undergo continuous expansion - local production will help to cushion peaks and to enable a quick response to rush orders. The main investments in the markets are ploughed into sales and into the expansion of client relationships in all target industries. The latest figures show that this strategy is already a successful one.

In the US, sales increased by more than 10% compared with the previous year. France continues its success story and is looking forward to significant double-digit growth. And in China, Poland and the Czech Republic, the upward trend of recent years is continuing with tremendous momentum. Last year in Sweden, we hired our own sales representative, Jonas Lund, in order to tap the new potentials and explore these opportunities even further - and are already benefiting from this stronger presence in the market.

And with our participation in the UBR, we are now even closer to the market in Italy, and are very much convinced that we will likewise be able to contribute to further growth in this area.

