

# SEALS

TECHNOLOGY



0221

Magazine for customers and partners 客户杂志



## HEADQUARTERS

## INSIDE

Innovations for your production

More precision for your machine

Interview with our Head of Engineering





## EDITORIAL

Dear Readers,

while this summer blessed us with the opportunity to return to a sort of freedom that had become almost unusual for most of us, the effects of the pandemic continue to prevail on another level - supply shortages due to reduced production capacities, as well as dramatically increased raw material prices and the resulting lack of availabilities do not only put a strain on our industry. In spite of intensive market research and analyses an end of this "exceptional situation" can currently not be foreseen.

We at Seal Maker do our utmost in order to counteract those unfavourable developments. By means of various optimizations and adjustments of manufacturing procedures, optimizing our stock as well as our internal process management, we are striving not to pass on emerging price increases to our customers and to avoid any delivery delays as far as possible.

In case unforeseen bottlenecks will occur despite of all our efforts, we would like to take the opportunity once more and ask our customers for their understanding, as the reasons are beyond our control. The pandemic will continue to be in the focus of our attention for another period of time, but I am convinced that by means of patience, persistence and solitariness we will manage to face this challenge.

The constantly growing demand for our products posed another challenge on us and gave rise to the decision to extend our company building. We started with the realization of our plans for an additional new building in the middle of this year. Construction works are proceeding quickly and by the end of this year we will have an extra space of 1200m<sup>2</sup>. Half of this additional space will be effective production area and will be equipped with new, state-of-the-art machines, as for example a new polyurethane casting machine.

The new facilities will create the possibility for further expansion and modernization of our plant and enable us to be always up to date with the latest technical developments and quality standards, as well as to meet the requirements of sustainability and protection of the climate.

Above that, we have also developed new supplementary products for your machine equipment and are pleased to introduce them in this issue.

I hope that the current issue of our client's magazine "Seals Technology" will provide you with interesting news and stories about Seal Maker and wish you a nice and joyful remaining summer.

Yours,  
Johann Glocknitzer

尊敬的读者朋友们，

虽然今年夏天疫情有所缓解，让我们有机会回到一种相对自由的状态，但是另一方面，疫情的影响在另一个层面上继续显现——由于产能下降而造成的供货紧张，以及原材料价格大幅上涨和由此造成的供货不足，给我们的行业带来了很大的压力。尽管我们进行了深入的市场调研和分析，但仍然无法预见目前这种特殊情况何时才能缓解。

Seal Maker将尽最大努力来抵消这些不利事件的影响。通过对生产流程的各种优化和调整，优化我们的库存以及内部管理流程，力求不将新出现的因素造成的价格上涨转嫁给我们的客户，并尽可能避免交货延迟。

虽然我们将尽一切努力改善我们面临的困境，但还是要请我们的客户谅解，很多情况是我们无法控制并预见的。疫情在今后很长一段时间内将继续成为我们关注的焦点，但我相信，通过耐心、坚持和努力，我们终将克服这一挑战。

市场对我们产品需求量的不断增长对我们提出了新的挑战，因此我们决定对公司进行扩建。年中我们就计划扩建一座新大楼，扩建工程进展迅速，到今年年底我们将多出1200平方米的生产办公空间。其中扩建面积的一半将用于生产区，并将配备一些最新最先进的机器设备，其中包括一台新的聚氨酯浇铸机。

新的机器设备将为我们工厂的进一步扩建和现代化进程创造条件，使我们始终走在最新的科技前沿，符合严格的质量标准，并满足可持续性和环境保护的要求。

此外，本期杂志还将为您介绍我们为机器设备开发的一些新的补充产品和功能。

希望本期客户杂志能为您提供有关Seal Maker的最新资讯，并祝您度过一个愉快的夏季。

此致，  
Johann Glocknitzer



Coolant return

# Innovations for your production

## COOLANT RETURN

In the course of the seal production procedure coolant accumulates gradually in the chip container of the suction unit. With our newly developed "coolant return retrofit kit", which is optionally available for all our machine models, the coolant is automatically returned to the machine, eliminating the need for manual emptying. In addition to making work easier, this option will save you a considerable amount of time.

## 冷却液回流装置

在密封件生产过程中，冷却液会逐渐积聚在吸入装置的切屑容器中。我们最新开发的“冷却液回流装置”可用于数控车床的所有机型，通过这套装置，冷却液可以自动回流至机器，无需再手动排空。这套装置不仅使密封件的生产加工更简便，也节省了您宝贵的时间。

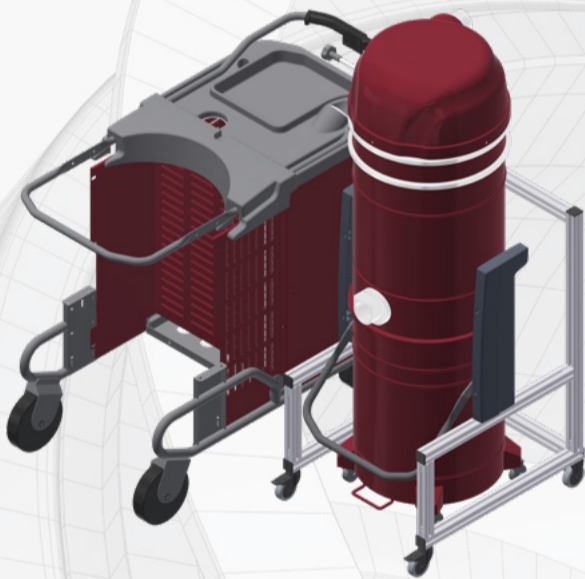
## SUCTION - KIT

Another innovation that makes the operation of our machine systems more comfortable is the possibility of relocating the vacuum unit, which is the main cause of noise generated by the machine. With this (retrofit) option, the vacuum unit can be separated from the chip container and, for example, placed into another room. The chip container remains directly at the machine and can be emptied as usual. Apart from the noise reduction, this option also enables space savings at the machine workplace. Depending on the requirements, we have developed three versions of the kit with different advantages.

## 吸屑装置-套件

另一项能使数控车床运行更顺畅的技术创新是我们重新放置了真空吸屑装置。真空吸屑装置是机器产生噪音的主要原因。重新放置位置后，将真空吸屑装置从芯片装置中分离出来，就好比把真空吸屑装置放入另一个空间，而芯片装置留在原有机器的位置，机器仍然可以像往常一样运行。改装后除了可以降低噪音外，还可以节省数控车床的占地空间。根据客户的不同需求，我们开发了三种具有不同特点的套件。

Extraction kit  
Option 1



Extraction kit  
Option 2



Extraction kit  
Option 3



If you have any questions about our new products, our sales team or your contact person will be at your disposal as usual.

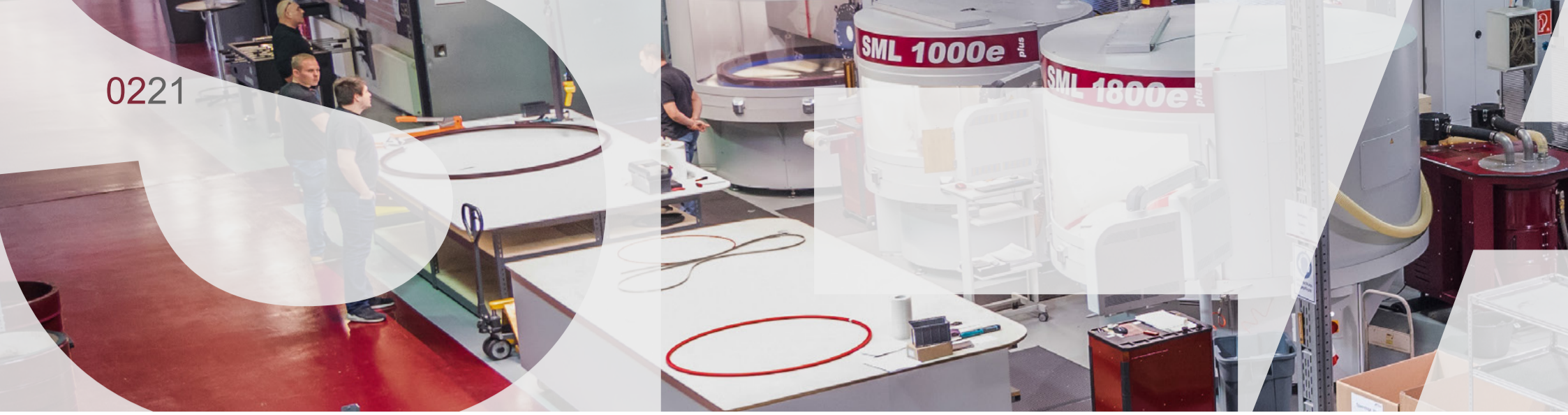
如果您对我们的新产品有任何疑问，请随时联系我们，我们的销售团队将一如既往地为您提供服务。

## IMDS DATABANK

The IMDS (International material Data System) is the material data system of the automotive industry. Due to the cooperation of many manufacturers, IMDS has become a global standard. In IMDS, all materials used for the production of cars are collected and archived. By using the database, it is possible to meet the requirements imposed by international standards and laws on automobile manufacturers and their suppliers. Our most common materials can also be found in this database. In case you cannot find one of our materials in the database, we would be happy to support you.

## 国际材料数据系统 IMDS

国际材料数据系统（IMDS）是汽车工业的材料数据系统。由于众多厂商的合作，IMDS已成为全球标准。在IMDS中，收集和归档用于生产汽车的所有材料。通过使用该数据库，可以满足国际标准和法律对汽车制造商及其供应商的要求。我们最常见的材料也可以在这个数据库中找到。如果您在数据库找不到我们的材料，我们将很乐意为您提供帮助。



# Interview with our Head of Engineering



Günter Amon has joined Seal Maker in the year 2006 and has held the position of the technical director since 2010. In the course of this interview he gave us an exciting insight into his daily agenda. Below we will learn more about the tasks and challenges he faces every day.

## What was your first position when you started at Seal Maker?

At the very beginning, I was sort of a freelancer. That was in 2006, when I was still a student and was asked if I could support the development of a quality management system. I was soon in charge of this job. In the end the project was completed with the certification according to ISO9001 for Seal Maker.

## What happened then?

I was offered a permanent position at Seal Maker which I gladly accepted. But I definitely wanted to finish my studies achieving the Master's degree, too. I managed to do so shortly afterwards.

## You have been a technical manager since 2010, what exactly are your activities?

Seal Maker's technical department is split up into several divisions. These are: CNC systems development, material development and process engineering. In addition, there is the CNC service department, the quality assurance and management systems.

A major part of my work is the coordination of those divisions, for example the organisation of progress meetings concerning development projects in the field of mechanical engineering, materials technology or the management system. Of course, I am also involved in the daily business of quality assurance and the service department.

In summary, I coordinate projects, make decisions and motivate and lead my staff.

## Can you describe a working day at Seal Maker?

The most of the morning is dedicated to information exchange. We start early with a production meeting, where we discuss current topics such as product quality, urgency and prioritization of orders, as well as various technical topics.

The next information exchange takes place between the members of management, where important information from all departments is briefly communicated.

Afterwards, there are Jour Fixe meetings with department heads where several projects and certain topics are discussed and decisions made. In the meantime I work over some E-mails and projects.

Günter Amon于2006年加入Seal Maker，2010年起担任技术经理一职。在这次采访中，Günter向我们介绍了他的工作日常，通过下面的采访，我们将进一步了解他每天的任务和面临的挑战。

## 你在Seal Maker的第一份工作是什么？

一开始，我是个自由工作者，哪里需要到哪里。那时是2006年，当时我还是一名学生，公司让我去帮忙建立质量管理体系。不久我就开始负责这个项目。该项目最终使Seal Maker通过了ISO9001认证体系。

## 后来怎么样了？

然后公司给我提供了一个Seal Maker的长期职位，我欣然接受了。但当时我也想继续完成学业，拿到硕士学位。当然很快我就成功拿到了毕业证书。

## 你从2010年开始担任技术经理，当时你的工作内容是什么？

Seal Maker的技术部门被划分成几块，分别是：数控系统开发、材料开发和工程部门。此外，还有数控服务部，质量保证部和管理体系部。

我的主要工作是协调这些部门，例如组织有关机械工程、材料技术和管理系统领域发展项目的进度会议。当然，我也参与质量保证和服务部的日常工作。

总之，我负责协调项目，做出决策，激励和领导我的员工。

## 你能描述一下在Seal Maker工作的一天吗？

上午大部分时间是用来交流信息的。我们从生产会议开始，讨论当前的生产问题，如产品质量、订单的紧迫性和优先级，以及各种技术话题。

接下来的讨论在部门主管之间进行，其中包括对各部门的重要信息进行简要沟通。之后，与各部门负责人举行定期会议，讨论几个项目和某些主题，并作出决策。在此期间，我还要处理一些邮件和项目问题。



### What is it that makes your work so interesting?

First of all, it is the many different topics I am confronted with, as well as their broad scope. I am involved in mechanical engineering, materials engineering and material testing, but also in customers' and suppliers' issues. As a result, various tasks make each day different.

### What do you like most about your work?

First, I like the fact that I can make use of my knowledge and my experience in my versatile daily work. The most exciting thing, however, is that I can contribute to the company's success by introducing and implementing new ideas. Thus, new perspectives and opportunities arise for me and Seal Maker, ensuring that we are always up to date with the latest technology.

### Why is Seal Maker the perfect workplace for you?

The interesting sphere of an international company with clients from all over the world, as well as my broad scope of functions make Seal Maker a really attractive employer for me. Above that, it makes me happy to contribute to the success of a constantly growing and future oriented company.

### How do you manage to keep up-to-date with the latest technical developments?

As I am involved in many projects, I always have an up-to-date technical insight. It is particularly important for me to actively respond to the information and needs of our customers and to tackle possible current and future challenges quickly. Finally, I sometimes visit trade fairs and lectures. Last but not least, my colleagues are another important factor in my daily work. They are the experts in their fields and by permanently exchanging knowledge and experience one learns new things every day.

### To which technical innovations at Seal Maker can we look forward in the future?

We are constantly working to improve our products, such as the SML machine systems and our materials. We regularly strive to present new, optimized product developments. Of course, the quality of our products is very important and we are always looking for ways to improve it in order to offer continuously added value for our customers.

For some time now, we have been focusing on the topic of digitalization. There will be many interesting innovations for us and for our clients in future.

### You seem very satisfied in your job. How do you balance your stressful everyday life?

Mainly by spending time with my family. Me, my wife and my two daughters love doing various leisure time activities together. This makes me and my family feel pretty good. To get my head completely free, I like to go jogging or make music with my friends in an orchestra.

### 是什么使你对工作如此感兴趣?

首先,我面对的是不同领域的不同工作,范围极广。我参与机械工程,材料工程和材料测试,但也面对客户和供应商的问题。因此,不同的任务使每一天都面临不一样的挑战。

### 你最喜欢工作中哪一部分?

首先,我能在我的日常工作中运用我所学到的知识和经验。最令人振奋的是,我可以通过引入和实施新的想法为公司的发展做出贡献。一些新观点和实践的引入,确保 Seal Maker始终走在科技前列。

### 为什么Seal Maker是你理想的工作场所?

Seal Maker作为一家全球化公司在世界各地都拥有客户,基于我广泛的职能范围,Seal Maker对我来说是一家非常有吸引力的雇主。更重要的是,我很高兴能为一家不断发展、面向未来的公司的成功做出贡献。

### 你是如何与时俱进,跟上最新的技术发展?

由于我参与了许多项目,并且我始终洞察最新的技术见解。对我来说,积极响应客户的反馈和需求,迅速应对当前和未来可能面临的挑战,这一点尤为重要。最后,我有时会去参观展会和讲座。最后不得不提,是我日常工作中和同事的交流。他们都是各自领域的专家,通过不断地交流知识和经验总结,我们每天都能学到新的东西。

### 我们可以展望Seal Maker未来的哪些技术创新?

我们不断努力改进我们的产品,如SML数控车床和各种原材料。我们始终努力优化现有产品并不断开发新产品。当然,我们也十分注重产品质量。我们一直在寻求改进方法,以便为我们的客户提供持续的优质的产品。

一段时间以来,我们一直在关注数字化的话题。未来我们和我们的客户将会有许多有趣的创新产品和技术。

### 你似乎对你的工作很满意。你如何平衡你紧张的日常生活?

主要是和家人在一起。我,我的妻子和我的两个女儿喜欢一起进行各种休闲活动。这我和我的家人都很放松。此外,为了让我的大脑彻底放松,我喜欢去慢跑或与我的朋友在管弦乐队演奏音乐。



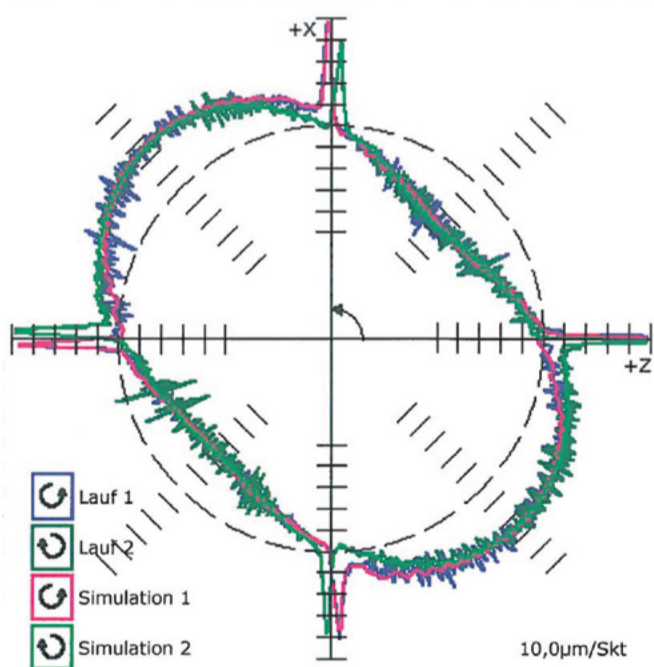
# More precision for high precision machines

Of course, our customers' machines are just as important to us as our own ones. Wear and tear due to excessive stress during machining of particularly hard and tough materials over many years, as well as incorrect operation (crash), extended machine downtime or poor maintenance can lead to deviations in the geometry. In order to extend the life time of your machine system and to maintain its accuracy, we have equipped our service technicians with a special circularity measuring system. By means of this system even the smallest deviations of your machine can be detected. The device uses the measurement data to generate an evaluation according to international standard (ISO203:4). This provides informative results to evaluate the accuracy of machines and to identify problems and sources of error that require maintenance. The measures taken on the basis of this analysis ensure, among other things, the reduction of unplanned downtimes as well as the compliance with the required quality standards.

当然，我们客户的数控设备对我们来说和我们自己的设备同样重要。多年来，由于特别坚硬的材料在加工过程中的碰撞，机器停机时间过长或维修不良，这些因素所造成的磨损会导致设备的几何结构偏差。为了延长您设备的使用寿命，保持其精度，我们为服务人员配备了一个特殊的循环测量系统。通过这个系统，即使是机器的最小偏差也能被检测到。该装置采用的测量数据是根据国际标准（ISO203:4）生成评价。这为评估机器的精度和确定需要维护的问题提供了有用的参考。在此分析基础上采取的维修维护措施，可以减少设备的停用时间，并符合生产的质量标准。

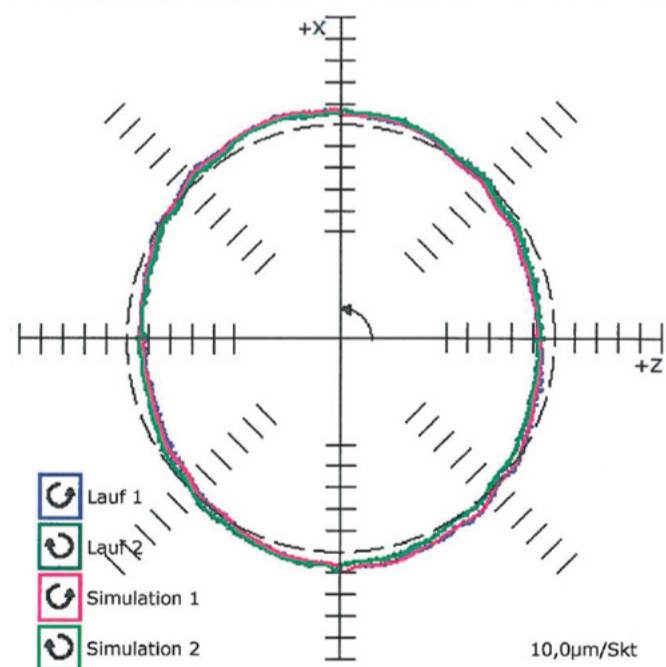
## Measurement reports including possible deviations of geometry:

含有几何偏差的测量报告:



## Measurement report of a machine at delivery:

设备交付时的测量报告:



### 1. Peaks on quadrant transitions:

象限过渡峰值:

Cause: Spindle backlash

原因: 主轴齿隙

### 2. Oval Circle:

椭圆:

Cause: Deviation in the right angle between the X and Z axis, X to Z axis not in the right angle

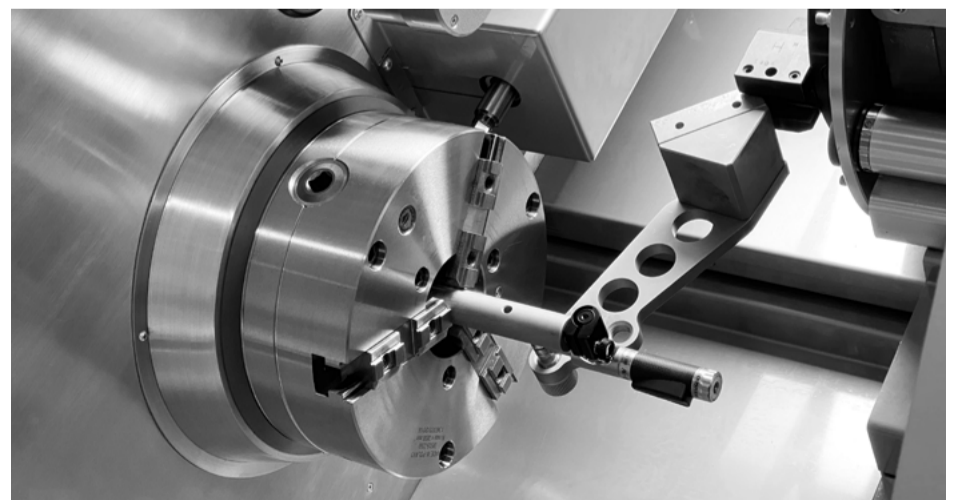
原因: X轴与Z轴直角偏差, X至Z轴不在直角

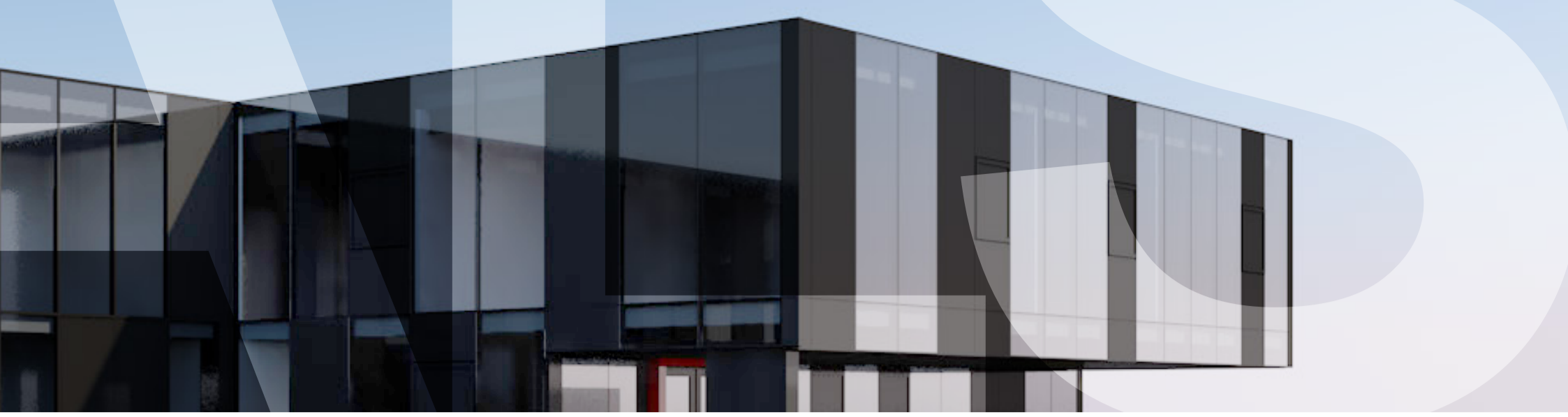
### 3. Cyclic Deviations:

循环偏差:

Cause: Defective spindle (bearing, spindle nut, pitch, etc.)

原因: 主轴(轴承、主轴螺母、节距等)有缺陷





# Extension New Building

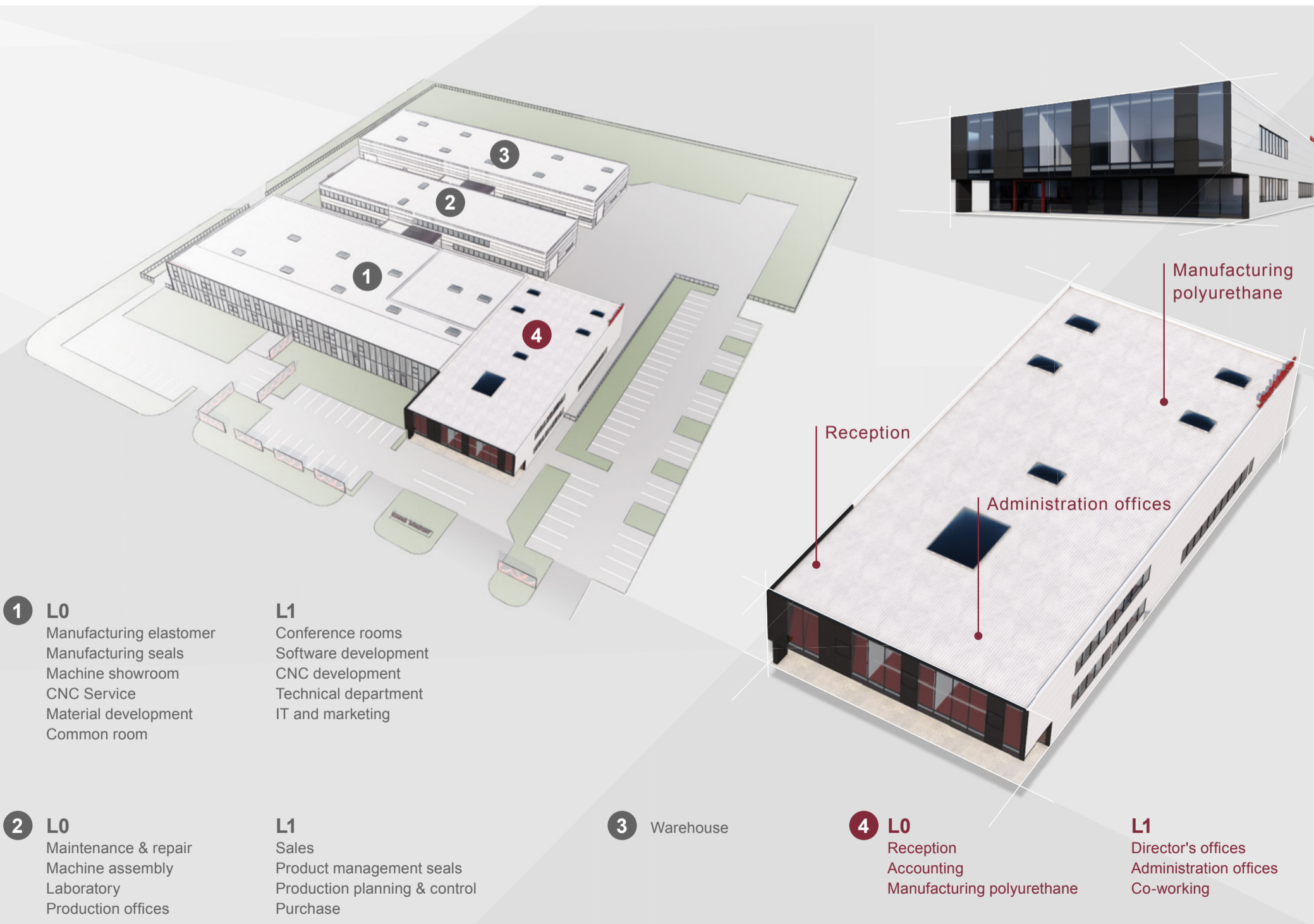


Seal Maker continues to grow! Our company building will be expanded by 600 m<sup>2</sup> production area and 600 m<sup>2</sup> office space. Construction work started in July this year. The expanded production hall will house a new polyurethane casting machine equipped with the latest energy-saving and sustainable technologies.

The additional building will offer enough space and capacity to ensure healthy and sustainable growth.

We are particularly proud that 75% of the total construction costs go to regional companies.

Seal Maker持续发展，我们的公司大楼将扩大600平方米的生产面积和600平方米的办公面积。新大楼今年7月开工扩建。扩建后的生产大厅将容纳一台采用最新节能和可持续技术的新型聚氨酯浇铸机。增建的大楼将提供足够的空间和生产能力，以确保公司的可持续发展。我们尤其感到自豪的是，75%的总建设费用来自公司内部。





# Experience for young talents!

Also in this year we are pleased to welcome several interns to our company and give them a comprehensive insight into the exciting world of Seal Maker. We are convinced that they can learn a lot from us and wish them all the best for their future careers.

同样在这一年，我们很高兴欢迎几位实习生来到我们公司，让他们全面了解Seal Maker的方方面面。我们深信，他们可以从Seal Maker学到很多东西，并祝愿他们在未来的职业生涯中一切顺利。



# Farewell dear friend

Unspeakably saddened and full of grief we announce the death of our esteemed colleague Kurt Pohl, who left us forever on 07 May 2021 at the age of 78.

For almost 20 years, Kurt was sick for barely one day – an indispensable support for our company. He was always there for colleagues and for clients and supported us all with advice and action, as well as by means of his talent, his extensive knowledge and his wealth of experience. There was no question, no matter in which area, he could not answer. His professional and human qualities have been recognized by all his business partners, who have often become friends, and colleagues around the world.

Just as he was an indispensable part of our company, Kurt always made us feel that we, his colleagues, had an important place in his life. He was an exceptional colleague and we will miss him a lot.



† KURT POHL

31. 01. 1943 - 07. 05. 2021

我们怀着难以言喻的悲痛宣布我们尊敬的同事Kurt的逝世，他于2021年5月7日永远离开了我们，享年78岁。

近20年来，Kurt只因病请假了一天，他是我们公司不可或缺的精神支柱。他总是在那里为客户和同事提供支持。他的才华、他的渊博知识和丰富的经验，毫无疑问，无论在哪个领域，没有他回答不了的问题。他的专业和优质品质得到了所有商业伙伴的认可，在世界各地都有他的同事和朋友。

正如Kurt是我们公司不可或缺的一员一样，Kurt总是让我们觉得，我们作为他的同事，在他的生命中也占有同样重要的地位。他是一位出色的同事，我们会永远怀念他。

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Masthead

Publisher, Editor: Seal Maker Produktions- und Vertriebs GmbH | Viktor-Kaplan-Allee 7, 7023 Pöttelsdorf, Austria | office@seal-maker.com  
Concept & Layout: LOGORHYTHMUS - Agentur für Werbung und IT GmbH | www.logorhythmus.com | Photos: Seal Maker, fotoimlohnbüro, Hrabal Architektur ZT GmbH  
Translation: Seal Maker, Cristian Goga

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