

# SEALS

TECHNOLOGY



0218

客户杂志 Magazine for customers and partners

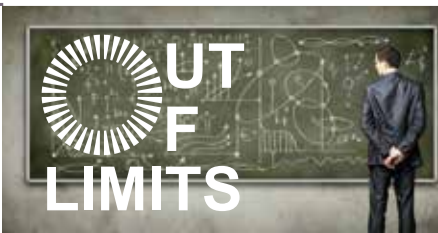


## HIGH PRESSURE EXTRUSION TEST RIG

Out of Limits

Gap size calculation

Multi-cavity-mould casting





## EDITORIAL

尊敬的读者

非常高兴2018年第二季度的客户杂志继续和您分享一些有趣的好消息。

也许您已经享受了愉快的年假，可能正在度假，也或许正期待着假期尽快到来。而此处Seal Maker“假日季节”已临近尾声！尽管我们从未真正受到所谓的“夏季坑洞”的影响，但近年来人们开始注意到夏季是商业淡季。但2018年的情况似乎有所不同，6月和7月创新高的订单量令我们有时“挥汗如雨”（不仅仅因为炎热的天气）。而幸运的是，由于我们员工的工作方式非常积极和灵活，并没有受假期影响需要延误货期，最大程度满足了客户的需求。

尽管有点小麻烦但更具有挑战性的是，在过去的几个月里，除了日常业务还有一些方面发生了巨大的变化。弹性体涂料部门的目标是扩充容量而简化工作。在小尺寸材料生产方面，我们引入了多个模具并已初有成效；我们还更新升级了SML软件系统，除了各种改进之外，我们尽可能实现客户的一些设想。从不同的材料性质，有趣的应用程序解决方案，以及管理挑战这些方面着手去实现这幅蓝图。

在这一点上，我想请你特别注意一个大家都关心的问题。在过去20年间，数字革命的优势是显而易见的。我们比以往任何时候都更加迅速、更高效、更成功。然而，在数字时代，世界总是会给我们带来巨大的危险。无论是恼人的“垃圾邮件”，欺诈性的“钓鱼邮件”，还是越来越频繁的“冒名总统”欺诈企图，我们必须意识到正身处于这些损害的危险之中。因此，在这一期杂志的7页您可以阅读到由我们IT部门编译的一个小指南。然而，仅凭这一点不足以永久地保护你不受“数字黑暗”的影响。请认真对待这个话题，培训你的员工，确保你的工作，并保持“质疑”的态度。

最后，请允许我重点介绍机器装配部门当前的工作负荷：随着新控制世代的引入以及SML机器系统的整体声誉提升，2018年不仅是订单量创也是交付量创新高的一年。如果今年您仍有SML机器（扩充设备）采购计划，请与我们的出口经理联系，让我们为您出谋划策。

在这个层面，我期待即将到来的是一个“炎热的秋天”，并祝福您在今年剩下的时间获得诸多成功。

谨上

Johann Glocknitzer

Dear Readers,

I am glad to present you again some interesting and pleasing information in the course of the 2nd edition of our Seals Technology 2018.

Some of you have probably already completed your well-deserved annual holiday, or maybe you are in the middle of it, others are still looking forward to taking up their holidays soon. Here at Seal Maker we are already quite close to the end of the "great holiday season"! Even though we were never really affected by a so-called "summer hole", it has been noticed in recent years that business in the summer months was running at a somewhat lower level. Pertaining to this 2018 seems to be different, besides other things. Record order intake in June and July caused us to "sweat" at times (not only due to the weather). Fortunately, however, thanks to our highly motivated and flexible staff, we have been able to meet the requirements of our customers without major delays, despite the holiday period.

Although with less hassle, but even more challenging, several things have changed quite a lot besides the daily business during the recent months. The aim of our Elastomer Coating department was to increase capacity and make work easier. We were able to achieve initial success by introducing multiple moulds for the small dimensions. A new software update is also available for our machine customers. In addition to various improvements, we were also able to implement some of our customers' wishes. New, consolidated findings regarding different material properties, interesting application solutions, as well as the one or the other administrative challenge complete the picture.

At this point, I would like to draw your particular attention to an issue that concerns all of us. The advantages of the digital revolution of the past two decades are obvious. We are faster, more productive and more successful than ever. Nevertheless, in the digital age, the world always poses great dangers to which we are regularly exposed. Whether it's annoying "spam emails", fraudulent "phishing mails" or the increasingly frequent "fake president" fraud attempts. We must be aware that we are in constant danger of suffering damage from that. Therefore you will find a small guide on page 7, which our IT department has compiled. However, this alone will not be enough to protect you permanently from the "digital dark side". Please take this topic seriously, train your employees, secure your IT and remain "skeptical".

Finally, I would also like to draw your attention to the current workload in our machine assembly department: With the introduction of the new control generation and due to the high overall reputation of the SML machine systems, 2018 will not only be a record year for incoming orders but also for deliveries. Should you still have plans to purchase an (additional) SML machine in 2018, please contact our export managers to plan the remaining capacities for you.

In this sense, I look forward to a "hot autumn" and wish you a lot of success for the remaining months of this year.

Yours,

Johann Glocknitzer



# GAP\_SIZE\_CALCULATION



Seal Maker 通过开发定制服务和特定应用程序的解决方案而不断努力支持您。我们的官网 [www.seal-maker.com](http://www.seal-maker.com) 可以提供您一个在线间隙计算工具。

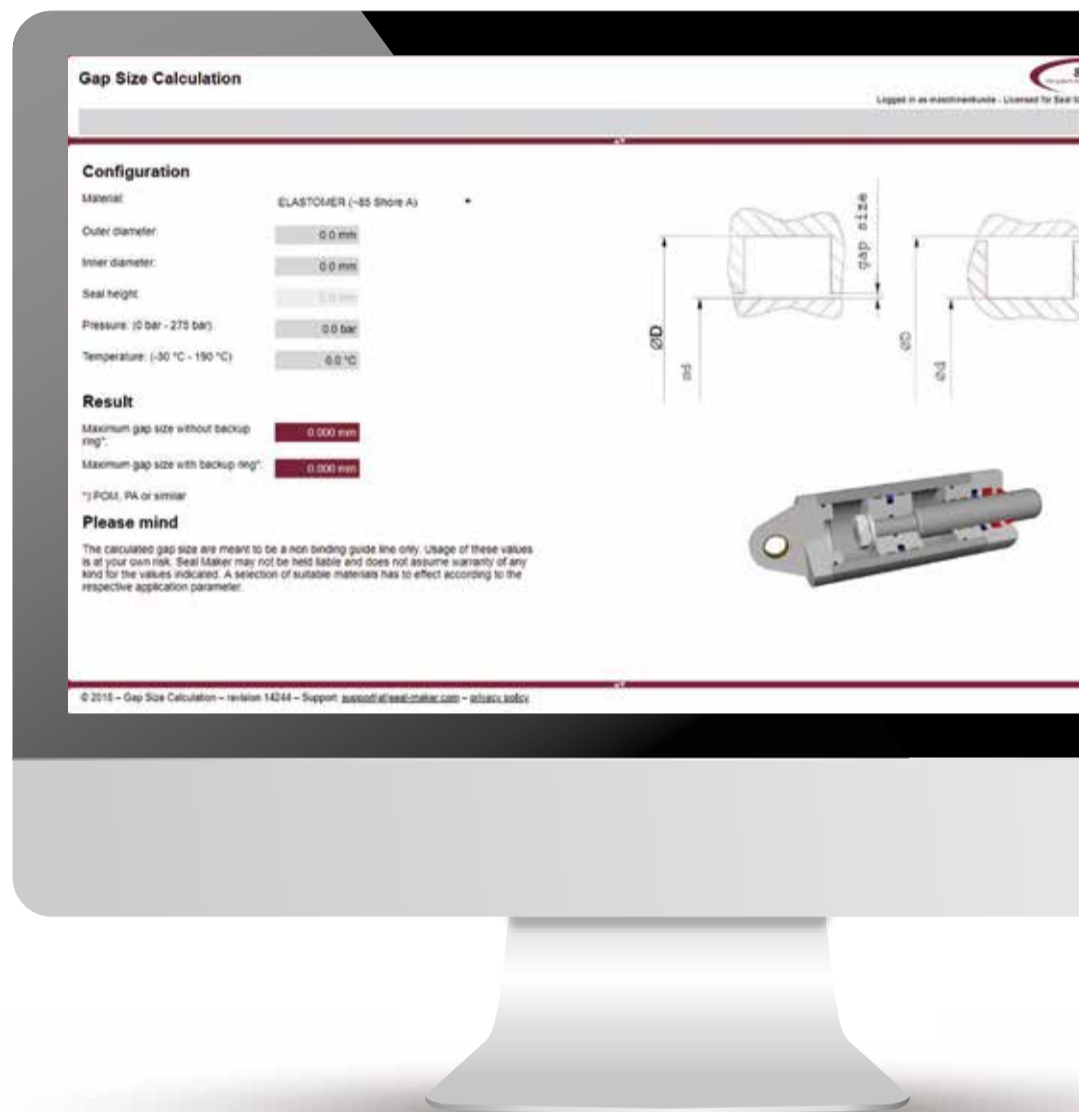
该工具可通过输入压力、温度和直径来确定液压系统中不同密封件的最大径向密封间隙。根据材料的选择——弹性体、聚氨酯或这些材料类型与支撑环的组合——最大的密封间隙各不相同。

因此，该程序可用于新气缸设计，但也可用于现有系统对密封件的选择。

Seal Maker is always anxious to support you by developing customized solutions together with comprehensive services. [www.seal-maker.com](http://www.seal-maker.com) now offers you a new gap calculation tool in the customer area on [www.seal-maker.com](http://www.seal-maker.com) which you can use online at any time.

The tool can be used to determine the maximum radial sealing gap for different seals in a hydraulic system by entering pressure, temperature and diameters. Depending on the choice of materials - elastomers, polyurethanes or a combination of these material types with back-up ring - there are different sizes for the maximum sealing gap.

The program can thus be used for new cylinder designs, but also as an aid in the selection of seals in existing systems.



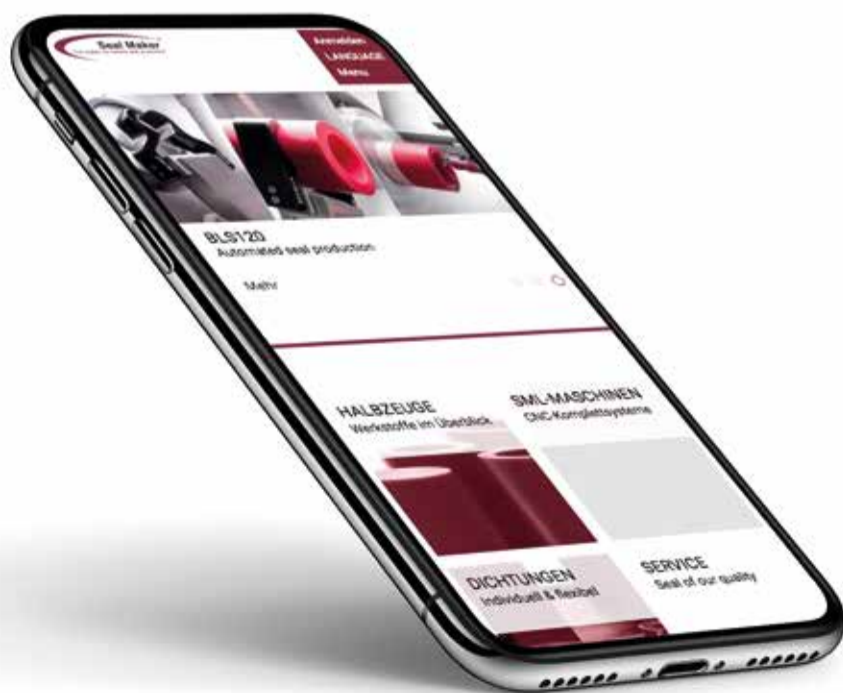
## Seal Maker goes mobile

您知道 Seal Maker 网站现在可使用所有移动设备浏览吗？我们优化了网站，并将所有页面区域转换为响应性 web 设计。

无论您使用何种移动设备，我们都努力为您提供最佳的访问体验。请立即拿起您的手机或平板电脑进行测试吧：[www.seal-maker.com](http://www.seal-maker.com)。

Did you know that the Seal Maker website can now be used on all mobile devices? We have optimized our website for you and converted all page areas to responsive web design.

No matter which device you want to access the website with, the responsive design offers you optimal user-friendliness on every mobile device. Get your mobile phone or tablet now and test it: [www.seal-maker.com](http://www.seal-maker.com)





## Multi-cavity-mould casting

长期以来，Seal Maker一直致力于在冷铸制造领域不断地优化生产工艺。其目标是通过使用多孔磨具型腔（8型腔、16型腔）来提高弹性体涂料的生产效率。

2018年1月，我们开始着手自主研发、设计和铸造8孔模具。2018年3月和4月进行了第一次测试。该项目于2018年5月中旬由开发部移交生产。综上流程：我们研发出了（无需经过任何后续处理）原材料外涂层以及（在不施加压力情况下）可自动脱模的磨具。

目前有两种形式在使用：

- 8型腔（外径38毫米）
- 16型腔（外径20毫米）
- 计划生产16型腔（外径30毫米）

其优点为：

- 简化工作流程
- 提高产品质量和外观
- 标准化（所有半成品原材料统一外形）
- 更快的生产周期
- 简易操作
- 气动控制
- 可生产从0毫米（实心）到各种不同直径的产品

For a long time Seal Maker has been working on the optimization of production processes in the field of elastomer coating. The goal was more efficient production in elastomer coating by means of using multiple moulds (8-fold, 16-fold).

In January 2018 the development of an 8-cavity mould was started. This was designed and built by our employees themselves. First trials took place in March and April 2018. The project was handed over to production by the internal development department in mid-May 2018. Integrated into the process flow, we may now present the result to you: A finished coating (no post-processing) and automatic demoulding (without applying force).

Currently 2 multiple forms are in use:

- 8-fold (outside diameter 38 mm)
- 16-fold (outside diameter 20 mm)
- Planned: 16-fold (outside diameter 30 mm)

The advantages:

- Easier work for employees
- Improvement of quality and appearance
- Standardization (all semi-finished products look the same)
- Faster cycle times
- Simple operation
- Pneumatic control
- Flexible production from inside diameter 0 (no core) up to different diameters

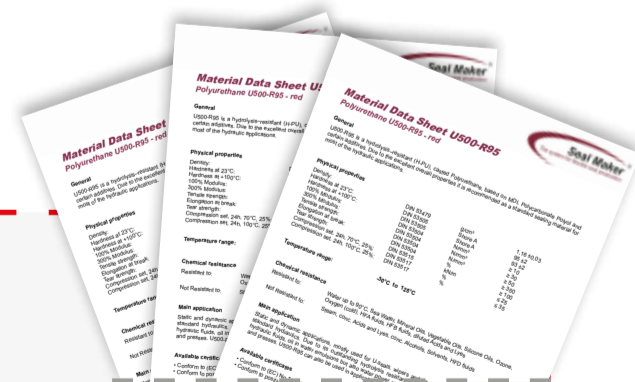
## Update Data Sheets

我们会采取一系列的监控措施以确保产品的高品质。在数据评估的过程中，会发现更优质参数，例如通过优化内部流程，我们可以为供应商提供相关原材料更好的数据。对各种机械数据进行了校正，并对材料数据表进行了调整，同时我们也对安全数据表进行了更新。

和往常一样，所有更新的数据表都可以在官网的客户区域进行下载。更多新工具方面的信息，请访问[sales@seal-maker.com](mailto:sales@seal-maker.com)。

Continuous batch monitoring is an essential contribution to quality assurance in our company. In the course of the data evaluation it could be determined that some data are better than stated. But we can also guarantee significantly better data for certain materials due to suppliers or, for example, due to our internal process optimizations. Accordingly, various mechanical data were corrected and formal adjustments made to the material data sheets. Our safety data sheets have also been updated.

As usual, all updated data sheets are available for download on our website in the customer area. For more information on the new tools, visit [sales@seal-maker.com](mailto:sales@seal-maker.com).





# HIGH PRESSURE EXTRUSION TEST RIG

试验与检测在创新材料的开发中起着至关重要的作用。为满足市场对更高负荷以及效率日益增长的需求，我们用挤压试验台对材料进行了测试。

该设备是由研发部门与产品管理部门合作开发、设计和组装的静态挤出试验台。现今，我们已可模拟不同的挤压间隙，压力达到2800巴和温度120度。在一定的时间内，特定的条件下，使用不同材料以保留测试结果。

由此产生的变形，即所谓的挤压羽流，再与其他各种材料的试样进行比较，以确定挤压的行为和阻力。

Testing and inspection play a particularly important role in the development of innovative materials. In order to meet the increasing demands of the market with regard to higher load-carrying capacity and efficiency, our materials are now undergoing testing on the extrusion test bench.

The device is a static extrusion test stand, which was developed, designed and assembled by the internal R&D department in cooperation with our product management. From now on, conditions of up to 2800 bar and 120°C can be simulated for different extrusion gaps. Test specimens of different materials are used and kept constantly under certain conditions over a specified period of time.

The resulting deformation of the seal, the so-called extrusion, is then measured and compared with other test specimens of various materials in order to determine the extrusion behavior and resistance.



# OUT OF LIMITS

## 研磨头相配套密封件

### Seal for grinding head

客户/国籍 Region	奥地利钢铁行业 Austria (Steel Industry)
项目启动日期 Project start date	2018年2月 February 2018
所需材料 Material used	F109(氟橡胶 棕色) - 铝制外壳 Material = F109 (FPM brown) - Casing is made of aluminum
特殊要求 Particularities / challenges	密封必须能够承受较高pv率(压力/速度)-压力达4.5巴和19米/秒 Seal must be able to perform at a very high pv rate (pressure/velocity) - up to 4.5 bar and 19 m/s
交付的完成密封/客户反馈 Delivery of the finished seal / customer feedback	测试成功后, 客户订购了多套密封组合 After successful testing, the customer ordered several seal sets

**Seal Maker**的一大优势在于它的市场关注度。为客户定制特殊规格产品的案例比比皆是。在“突破极限”系列中, 我们不断地提出具有特殊要求的项目, 要求特殊的解决方案。这些可以与形状、大小、轮廓、直径和公差以及特定于客户的材料有关。我们不局限自我, 并期待在密封技术方面迎接更多的挑战!

One of the great strengths of Seal Maker lies in its customer focus. Special productions on the basis of individual requests from customers are not rare cases. In our "Out of Limits" series, we continuously present projects with special requirements that call for special solutions. These can relate to shapes, sizes, profiles, diameters and tolerances as well as to customer-specific materials. We set ourselves no limits and look forward to challenges in sealing technology!



# SML SYSTEM SOFTWARE



我们对SML系统软件再次进行了创新性升级。除了导入新产品规格(PS04A)之外, 对现有规格也进行了补充修改(WR11/WR12/WR17/R35A/R35B)。修改后的产品规格被默认为系统标准件, 因此需要升级相应的生产工具。而这些SML新机器都已配备。您可以采购这些工具, 也可以沿用系统文件夹中的“旧产品规格”。

请登陆官网下载最新版本4.6.7。

#### 新功能介绍:

- 可存储DXF文件  
通过存储产品型号文件这一新功能, 您可以将设计的密封配置文件(Vario)作为CAD文件保存或处理, 更优化设计人员和操作员的工作。
- 规格选项的扩展
- 各种配置的优化
- 工具的新标配

您会在官网上发现更多关于产品特性和创新细节。此外, 我们已更新下载区域的产品规格。更多相关SML系统软件的问题, 请与我们的技术人员联系“sml-service@seal-maker.com”。

The SML System Software has again been extended by innovative features. In addition to the introduction of a new profile (PS04A), some adaptations to existing profiles (WR11, WR12, WR17, R35A, R35B) were also carried out. Here, improved profile designs were fixed and defined as standard, which is why new tools will be required in the future for improved production. These tools are now included in every new SML machine. Existing customers can either order these tools or continue to use the old version of the profiles that can be found in the "Old Profile Versions" folder in the software.

The new update with version number 4.6.7 is available for download in the log-in area on the website.

#### An overview of the new functions:

- Saving DXF files  
A new function for saving profiles has been added. With this update it is now possible to save or process designed sealing profiles (Vario) as CAD files, which will make the work much easier for designers and machine operators.
- Extension of the profile selection
- Various profile optimizations
- New standard tools

More details and information about the features and innovations can be found on the website in the Update Notes. In addition, the profile overview in the download area has been adapted. For further questions about your SML System software, please contact our service technicians at »sml-service@seal-maker.com.



# READY - SET - GO!

Gerhard Hölzel 和他的团队的每天早上6:00开始仓库式马拉松，仓库里非常忙碌。两班制的流水工作，他们确保成千上万的货物从位于布尔根兰州珀特斯多夫— Seal Maker总部，运送到诸如肯尼亚等异国。如此水到渠成的工作正是因为有格哈德罗泽尔这支出色的团队。4名男性员工与1名女性员工的配合，以极其谨慎的态度，尽可能缩短从工厂到顾客的交货时间。所有的工作是由计算机和半自动所实现。

成功的仓库管理最重要的先决条件是：拥有优化的仓库环境和了解出入库的情况，有清晰的头脑并能做出快速反应的员工。

因此，Gerhard Hölzel从未在他的心率监测结果上看到过关于“需要增加运动时间”这一建议。在tze平均每天他会步行6到7公里。事实上，尽管他已60岁但依然体魄强健，2018年7月23日，他攀登了奥地利的最高峰——海拔3798米的大格洛克纳山，这一事件足以说明这点。

The warehouse marathon for Gerhard Hölzel and his warehouse team starts daily at 6 am, because they carry out a lot of movement in the warehouse. In a two-shift operation they ensure every day that thousands of articles make their way from the Seal Maker headquarters in Pöttelsdorf/Burgenland to exotic destinations such as Kenya. The fact that everything works so smoothly is due to the great team around Gerhard Hölzel. 4 men and 1 lady take great care to keep the delivery time from the factory to the customer as short as possible. Work is PC-supported and semi-automated.

The most important prerequisites for a successful warehouse management are: an optimized warehouse and quick employees who know the warehouse by heart and who always have a good overview, and stay calm.

Gerhard Hölzel has therefore never seen the push message "Time for Movement" on his smart watch. On the average he covers 6 to 7 km a day. And the fact that he is still very fit at the age of 60 has only recently been impressively demonstrated. On 23 July 2018 he climbed Austria's highest mountain - the Grossglockner at 3,798 meters above sea level.



## Spam Mails

随着冒充邮件的日益增多，骗子们肆意地伪装成知名企业，到处都有人借着 Seal Maker的名义。因此，请您处理电子邮件时特别注意。

与此同时，各种诈骗通过垃圾邮件的形式传播。最近有客户收到冒充Seal Maker的垃圾邮件，告知所使用的邮箱需要验证，或者邮箱已经满了。以此方法要求付款的诈骗也不胜枚举，这些都是网络钓鱼的陷阱。

为此，我们IT部给到您一些建议：

- 任何时候都要使用防火墙
- 在无法确定安全性的情况下，不要打开电子邮件附件或邮件中的链接
- 不要更改个人资料或帐户信息
- 留意电子邮件的格式（对比以往Seal Maker的官方邮件格式）
- 请将有问题的电子邮件发送给您的Seal Maker客户顾问（友情提示：请不要点击“回复”钓鱼岛邮件，否则电子邮件将再次发送给诈骗者）

There is an increased number of fake e-mails in circulation. Again and again fraudsters use the names of renowned companies. But not everywhere, where Seal Maker is written on, there is also Seal Maker in it. Therefore, please pay special caution when handling e-mails.

Meanwhile, the most different versions are circulating as spam mail. Recently, messages were sent in the name of Seal Maker claiming that the mailbox was not authenticated correctly or that the mailbox is full. Demands for payment are also regularly in circulation. Of course, these are only excuses to lure you into the phishing trap.

Here are the recommendations of our IT department:

- Always use antivirus protection.
- If in doubt, do not open e-mail attachments or links.
- Do not exchange personal data or account information.
- Pay attention to the layout of the e-mail (in accordance with the corporate design of Seal Maker).
- Forward questionable e-mails with Seal Maker sender to your responsible Seal Maker customer advisor (Attention: Do not click on "reply", otherwise the e-mail will reach the fake sender again).



# Let's celebrate - Back to the roots



...这是今年夏天Seal Maker举办的夏季派对的格言。感恩天公作美，多年以后我们可以在露天欢庆。在过去的十年里，伴随着摇滚和流行音乐的合奏，音乐乐队“第一支舞”将客人们的热情都带动了起来。大家欢快地度过了一个美好的夜晚。这是我们整个家庭的聚会，即使是最年轻的游客也在沉浸在各种手工艺品和在脸上各种涂鸦玩得非常尽兴。最后值得一提的是，美味的Kirtagsmenü (露天集市佳肴) 以及让人幸福的甜品为此良宵锦上添花。

...was the motto of this year's summer party at Seal Maker, which – thanks to the nice weather - could take place open air again after many years. With a mix of rock and pop hits of the last decades, the music band "First Dance" heated up the guests. Cheerful and with high spirits we went through the evening. It was a party for the whole family. Even the youngest of the visitors had fun at play stations, handicrafts and painting their faces. But last but not least the delicious Kirtagsmenü (kermess menu) along with sweet delifood made the evening perfect.

## Data privacy

如您所知，自2018年5月25日起，新欧盟数据保护法启用，会给予您的数据更多保护和他安全。严格遵守数据保护规定对我们是非常重要的，这也就是为什么Seal Maker持续地采取必要的预防措施以安全地管理您的数据。

如果您对我们公司的数据保密有任何疑问，请不要犹豫，请通过电子邮件与我们联系 [dataprotection@seal-maker.com](mailto:dataprotection@seal-maker.com)。

友情提示：您了解有关我们数字通讯吗？请登陆[www.seal-maker.com](http://www.seal-maker.com) 注册获取。

As we have already informed you, the new EU data protection basic regulation applies since 25 May 2018 and now brings even more protection and security for your personal data. Compliance with data protection regulations has always been of great importance to our company, which is why Seal Maker takes the necessary precautions on an ongoing basis to manage your data securely.

If you have any questions regarding data protection in our company or the exercise of your rights regarding the processing of your data, please do not hesitate to contact us by e-mail at [dataprotection@seal-maker.com](mailto:dataprotection@seal-maker.com)

**Tip:** Do you already know our digital newsletter? At [www.seal-maker.com](http://www.seal-maker.com) you have the possibility to register.

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