

SEALS

TECHNOLOGY



0118

客户杂志 Magazine for customers and partners



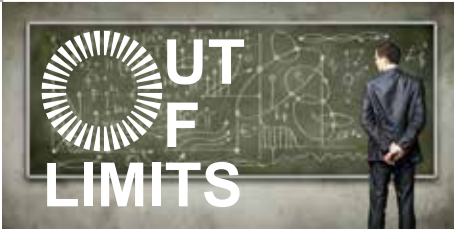
SPECIAL INDUSTRY & SPECIAL SERVICE

Worldwide

Out of Limits

New colour codes

Sales competence





EDITORIAL

亲爱的读者

2018年第二季度伊始，我很高兴地向大家报告当前Seal Maker的发展情况和动态。

延续去年的佳绩，再次证明我们努力的方向是正确的。通过不断提高和发展自己领域的材料以及机领域的系统和密封件，持续改善技术和调整管理尽可能满足顾客的期许。

例如，今年年初以来，弹性体的外壳保护层已经采用更优质材料和新颖的外观，一方面为防止生产过程中混淆，另一方面减少生产密封件时车屑流所造成的污染。

“特殊行业解决方案”也发展良好。除了加强与学术机构的合作之外，我们还将公司内部这一领域的能力和专业知识集中起来，持续快速和专业地为各种行业开发有针对性的密封件解决方案（详见第4/5页）。

Seal Maker不仅止于提供特殊领域的密封产品。最初开始，我们就非常重视产品相关的服务。4/5页上的“Seal Maker锦上添花”板块，我们会为您集中呈现关于Seal Maker的服务以及特色。

我们将向您汇报关于在上一期“超越极限”板块中所提到“亚洲水电站大型密封圈”项目的完成情况。

在销售部门建立“能力中心”是为了更有效服务客户的另外一项举措。这些团队运用专业知识能迅速应对、娴熟地提供技术方案。我们向您承诺对员工职责只是做了细微的调整，因此您的专享客服会一如既往为您提供最大的帮助和支持。

最后，敬请访问我们公司主页上的“FAQs”板块，您可以找到与我们的产品和服务许多相应问题的解决方案。我们的员工也将竭诚为您服务！

希望您喜欢新一期的客户杂志。

敬上，

Johann Glocknitzer

Dear readers,

I am pleased to inform you about the current developments and news from Seal Maker at the beginning of the second quarter of 2018.

The fact that we managed to take up last year's success is another proof that our efforts to constantly improve ourselves and encourage development in the fields of materials as well as machine systems and seals are on the right track. In order to always meet our customers' expectations, there are continuous improvements taking place in the technical as well as in the administrative fields.

For example, the coating of elastomeric semi-finished products has been produced in a new quality and new design since the beginning of this year. The aim is to prevent confusion during processing on the one hand and to reduce the contamination of the machine during seal production by means of an improved chip flow on the other hand.

The “Special Industry Solutions” division is also developing well. In addition to our increasing collaboration with academic institutions, we have focused on our own internal capacities and expertise in this area to keep up the rapid and professional development of targeted sealing solutions for the respective industries (read more on page 4/5).

But Seal Maker offers more than just products and not only in some special areas. The services related to our products have always been particularly important to us. On page 4/5, we compiled a comprehensive list of Seal Maker's services and features named “Seal Maker Add-ons”.

As part of our “Out of Limits” series, we report on the completion of the project called “Giant seal for a hydroelectric power station in Asia”, covered in the last issue.

Another step towards more efficient customer services is the establishment of the so-called “Competence centres” in our sales department. These teams provide our customers with a quick and competent support and a focused know-how. We ensured that the responsibilities of our employees for particular customers will only change slightly. Thus, you will be furthermore supported mainly by your usual contact persons.

Finally, I would like to point out the “FAQs” section on our website - here you will find answers to many questions regarding our products and services. Of course, our employees will be happy to assist you in person as well!

I hope you enjoy reading this latest edition of our “Seals Technology”!

Yours,

Johann Glocknitzer

NEW COLOUR CODES

正如上期客户杂志中所报道，自今年年初以来，弹性材料以一种全新的品质和形象面世。涂层材料的着色应主要确保客户方产品的耐用性，降低混淆度。因此我们决定根据半成品材料（氟橡胶, EPDM, NBR和有机硅）来分组着色。此外，近几周内我们将用复合数字组合取代彩色条形码，例如N107, F109等。

下表所示为材料的新配色方案

As reported in the last edition of Seals Technology, the material for the coating of elastomeric semi-finished products has been produced in a new quality and design since the beginning of this year. The colouring of the coating material should prevent confusion concerning material-resistance. Therefore, we decided to group the colouring according to the elastomer base compounds (fluoro rubbers, EPDM materials, NBR materials and silicones). Furthermore, in the next few weeks, the colour-code will be replaced by the compound number, e.g. N107, F109 etc.

The following table provides an overview of the new colour scheme:

Fluoro Rubbers

FPEM AF101-B85 (Aflas)*
FPM F109-BR85
FPM FDA F110-BR85
FPM Black F111-B85
FPM F800-F85-RGD

EPDM Rubbers

EPDM E131-B85
EPDM FDA E132-W85
EPDM KTW E133-W270

NBR Rubbers

NBR N107-B85
NBR95 N109-B95
NBR FDA N110-W85
H-NBR HN112-B85
H-NBR HN900-B85 RGD
H-NBR LT HN901-B85 RGD

Silicones

MVQ S102-R85
MVQ S103-BL85

* Aflas® is a registered trademark of the Asahi Glass Company

Measuring forces - Cooperation with



Seal Maker和位于林茨（上奥地利州）的约翰内斯开普勒大学在某些领域有过多次的合作。特别是在关键应用的密封设计方面，今天我们喜欢依靠有限单元法(FEM)的计算模型，这是一种微分方程解的数值方法。最近完成的项目目的是为了将不同理论FEM与实践进行比较，一方面是为了证实之前的结果，另一方面是能够在未来的项目中采用最实用的方法。为此，学生们检查了密封材料的数据，收集了材料数据，并使用了一个测试装置来编译计算出来的数据，以分析理论偏离实际的情况。

非常幸运我们已经证明了以前使用密封装置的计算方法与实际发生值非常接近。这不仅是对过去计算方法的肯定，也对未来项目的实用性也有了保障。我们感谢约翰内斯开普勒大学给与的协作。

For quite some time, Seal Maker has worked together with the Johannes Kepler University Linz (Upper Austria) in certain areas. Especially when it comes to the design of seals in critical applications, we like to rely on calculation models based on the finite element method (FEM), a numerical method for solving differential equations. A recently completed project aimed to compare different theoretical FEM approaches with practical experience, on the one hand to confirm the previous results, and, on the other, to use the most practical approach for future projects. To do so, the students examined Seal Maker materials, collected their material data and used a test rig in order to compile the calculated data and to analyse to what extent theory deviates from practical experience.

Fortunately, it was proven that the calculation method previously used by Seal Maker is very close to the values that prevail in practice. It is not only a confirmation of the previous calculations, it also gives us a firm assurance that the best possible method will be used for future projects. We thank the Johannes Kepler University Linz for their cooperation.



涉及到诸如水力、采矿或水泥行业等特定行业，经验和专业知识是不可或缺的。我们也在近期的议题上报告了这一点。为了未来更好地支持我们的合作伙伴，我们已为这个领域组建了一个专项团队，以便与当地合作伙伴共同努力从而解决这些问题，并为维护所有相关人员的利益提供解决方案。我们的新产品管理团队“Seals”专注于来自特殊行业的高端定制要求，并提供引人注目的一站式服务。

Seal Maker的特殊服务

为各行业提供解决方案

我们可以为您提供几乎所有行业的密封解决方案，尤其是水电、矿山和水泥行业，我们也会逐步深入海洋、食品和饮料行业。

丰富的经验

凭借多年密封设计经验，使用高品质的材料，运用灵活的制造技术，我们以服务本土客户以及其它合作伙伴能够开发和实现各种解决方案为宗旨。Seal Maker的专家团队会给予您建议和行动支持。

专业技术

我们的产品管理提供了FEM计算、磨损分析、协助安装密封件服务以及协调和项目处

密封件样品

我们的某些密封解决方案可以通过解说的方式来展示密封件样品。详细内容和订单信息请参见第6页。

个人客户服务

我们会和客户进行项目讨论，从而将专业技能直接传递给终端客户。

培训课程

您可在我们内部接受培训，我们也提供上门培训课程。课程内容如下：

- 基础密封知识及技术培训
- 特殊行业运用知识培训
- 实际运用操作及测量培训

Experience and expertise are required when it comes to specific industries such as hydropower, mining or cement industry. We already reported in one of our recent issues.

In order to provide our partners with an even better support in the future, we have now put together a team especially for this area, in order to address these industries together with our local partners and to implement solutions for the benefit of everybody involved. Our new product management team “Seals” focuses on discerning customer requests from special industries and offers an attractive package of services.

Seal Maker Special Services:

Solutions for all kinds of industry

We offer sealing solutions for virtually all industries with a focus on hydropower, mining and cement, but in the future, we will extend the range of our products and focus on marine as well as on food & beverage industries.

Experience

Years of experience in seal design, high quality and variety of materials and flexible manufacturing techniques allow our partners to develop and implement solutions for all kinds of applications. But the Seal Maker experts support them anytime with words and deeds.

Expertise

Our product management provides FEM calculations, damage analyses, assists in the installation of seals and also in the coordination and project handling.

Seal samples

Some of our sealing solutions can now be ordered as samples for illustrative purposes. Details and order information can be found on page 6.

Personal customer service

We support our clients in project meetings with the end customer. Technical expertise can thus be passed on directly to the end customer.

Training and courses

The following training courses can be carried out in-house at Seal Maker or directly at a customer's facility:

- Sealing technology training providing basic knowledge
- Special industry trainings for specific application know-how
- Hands-on with measuring and installation

和我们取得联系

如果您对我们“特殊行业”领域的服务和其他特殊的密封技术感兴趣，请与我们联系；或者您也可以直接联系专属客服代表。

Get in Contact:

If interested in our “Special Industries” services and other special applications of sealing technology, please contact us at seals@seal-maker.com or get in touch with your sales representative directly.

*"Seal Maker is more than just a supplier
of sealing technology products"*

SEAL MAKER ADD-ONS

作为密封行业的合作伙伴，使用我们系统和产品的客户能否获得成功对我们是至关重要的。因此我们在多样化的领域为您提供的支持通常都是免费的。

Seal Maker的附件服务

- 软件升级服务
- 支持特殊密封件、程序和优化编程
- 开发用于密封生产的特殊工具
- 在奥地利总部提供客户有关SML数控机床的操作和维护培训课程
- 提供SML数控机床系统的运输和清关方面的建议
- 提供材料选料和规格的建议
- 在奥地利Seal Maker总部对客户进行密封知识讲解和具体的培训
- 提供现场技术支持
- 创建项目文件，包括与“特殊行业”和特殊应用程序有关的FEM计算和其他测试
- 帮助遇到生产瓶颈的客户客服难点完成密封件生产
- 有关“热点新闻”和“客户杂志”的行业动态所出版的定期刊物
- 提供（“单一”和“双重品牌”）个性宣传册和其他广告材料的创意或支持
- 详细内容请登录客户专区www.seal-maker.com
- 提供密封装置和技术的大量信息手册、照片以及视频

As a partner of the sealing industry, it is particularly important to us that our customers achieve success with our systems and products. Therefore, we support you in the most diverse areas in an unbureaucratic way and normally free of charge.

Seal Maker Add-Ons

- Software updates for seal production
- Support in the programming of special seals, programme and editing optimisations
- Development of special tools for seal production
- Training for the operation and maintenance of SML machines in Seal Maker HQs in Austria and at customers' facilities
- Advice on transport and customs clearance of the SML machine systems
- Advice and support in the selection of suitable sealing materials and profiles
- General and specific training in sealing technology in Seal Maker HQs in Austria and at customers' facilities
- On-site technical support at end customers' facilities
- Preparation of project documents, including FEM calculations and other tests, in connection with "Special Industries" and special applications
- Takeover of seal production for our partners in the event of bottlenecks and particularly difficult products
- Regular information about news and trends in our "Hot - News" and in the "Seals Technology" magazine
- Preparation and support of individual brochures ("single" and "dual branding") and other advertising materials
- Exclusive login area for detailed information at www.seal-maker.com
- Numerous information brochures, photos and videos about Seal Maker and sealing technology



OUT OF LIMITS



在“突破极限”系列中，我们已经向您介绍了有关在亚洲水电站大型密封圈的项目的启动。我们从施工现场得到了好消息：尽管现场条件艰苦，但试运行状况还是令人满意非常成功的。让我们带您回顾一下此项目的重大事件：

2017.09-订单

Seal Maker受亚洲某水电站委托生产一种大型密封压力管道装置。它是世界上最大的加压管道之一，直径接近800米。我们的终端客户是水电领域的龙头企业。

2017年10月05日-交付

20个直径超过1800毫米的密封件，需要将4个直径为7 650毫米的巨型密封件焊接在一起——为此我们研磨了一个单独的焊接装置。为了配合我们的客户此次合作，生产周期仅为2.5周。

2018年2月-试运行

为了安装此巨型密封件，我们设计了一种特殊的安装辅助装置。现场对于焊接技术要求非常高，施工严峻，密封件必须承载外壳的预负荷。最终压力测试成功完成，机器按预期计划进行施工。

In the “Out of Limits” series, we informed you about the start of a project concerning the installation of a giant seal for a hydroelectric power station in Asia. We have now received good news from the construction site: The startup procedure was successful despite difficult on-site conditions. Here we give you an overview of the project’s milestones:

September 2017 - Accepting the order

Seal Maker was commissioned to produce a giant seal for a pressure pipeline at a hydroelectric power station in Asia. It is one of the largest pressure pipelines in the world, with a diameter of almost 8 m. The end customer is a leading hydropower company.

5 October 2017 - Delivery

From 20 seals with a diameter of over 1,800 mm, four giant seals with a diameter of 7,650 mm were welded together - a separate welding device was installed for this purpose. In cooperation with our partner and the end customer the production was completed in a record time of only two and a half weeks.

February 2018 - Startup

For the installation of the giant seal, Seal Maker designed a special installation device. Welding on site was very demanding. The assembling was difficult since the seal had to withstand increased preload to accommodate serious irregularities of the housing. The pressure test was completed successfully and the machine was put into operation on schedule.

Inside the BOX

实用新闻宣布Seal Maker 作为特种行业的商业合作伙伴。我们的某些密封解决方案可以通过解说的方式来展示密封件样品。Seal Maker 主要在这些领域使用聚氨酯材料，为了更好地可视化，选择了一些示例概要文件并将其组合打包进行演示。目前有3种套餐可供付费选择：

请来电咨询我们吧 seals@seal-maker.com

Seal Maker announces practical news for business partners of Special Industry. Some of our sealing solutions can now be ordered and previewed as samples. Seal Maker primarily uses polyurethane materials in these areas. To provide our customers with better visualisation, selected sample profiles were produced and put together in a box for presentation. Currently, three sample boxes are available against contribution to costs:

We are looking forward to your requests! seals@seal-maker.com

MINING

CEMENT

HYDROPOWER



SALES COMPETENCE

车削密封件行业的繁荣兴旺取决于它的灵活性和快速反应。无论与生产还是产品本身有关，时间是影响我们行业成功的最大因素。

因此，我们的销售团队思考如何更有效、更快速、更实质性地支持我们的合作伙伴。未来在“能力中心”，将能实现更有效、快速地处理您所遇到问题，给予技术支持和解决方案。

尽管我们进行了小规模的内重组，但大部分员工的岗位职责保持不变，唯有少数例外。我们的Seal Maker员工将更好地为您服务。



请来信咨询我们，新邮箱地址是：seals@seal-maker.com

除了对各种内部流程进行优化，以及为员工的专业化提供培训课程之外，我们还创立了新邮件地址以提供不同密封件的在线咨询。我们增派了多位客服人员管理此邮箱可以及时处理您的来电咨询。

我们将竭诚为您服务，请发送邮件到以下邮件地址：seals@seal-maker.com

The industry of machined seals thrives on flexibility and fast reaction times, be it in relation to the production, the product itself, or to the request. Time has probably the most significant impact on business success in our industry.

Our sales team therefore considered how we could provide our partners with an even better, faster and more competent support in the future. In the so-called “Competence Centres”, your issues will be processed faster and more efficiently thanks to our focused know-how.

Despite some internal restructuring, the responsibilities of our employees remained virtually unchanged with a few exceptions. You will be served by your usual contact person at Seal Maker.



New mailbox for sealing requests: seals@seal-maker.com

In addition to the optimisation of various internal processes as well as the implementation of training courses for the specialisation of our employees, a new email address was set up for various sealing requests. This mailbox is attended by several people at the same time and requests can thus be processed even faster.

We kindly ask you to send your messages in “Sealing matters” to the following e-mail address: seals@seal-maker.com

Any Questions?

- 何时购买SML车削机床才最适宜？
- 什么是“全套系统包”FSP？
- 购买SML车削系统Seal Maker会提供怎样的售后支持？
- Seal Maker制造的半制成品优点是什么？
- 通常预期的交付时间是多久？

在“FAQs”的专栏里，我们已精心筹备并总结了这些问题的答案，还有更多的问题等待您来提问。



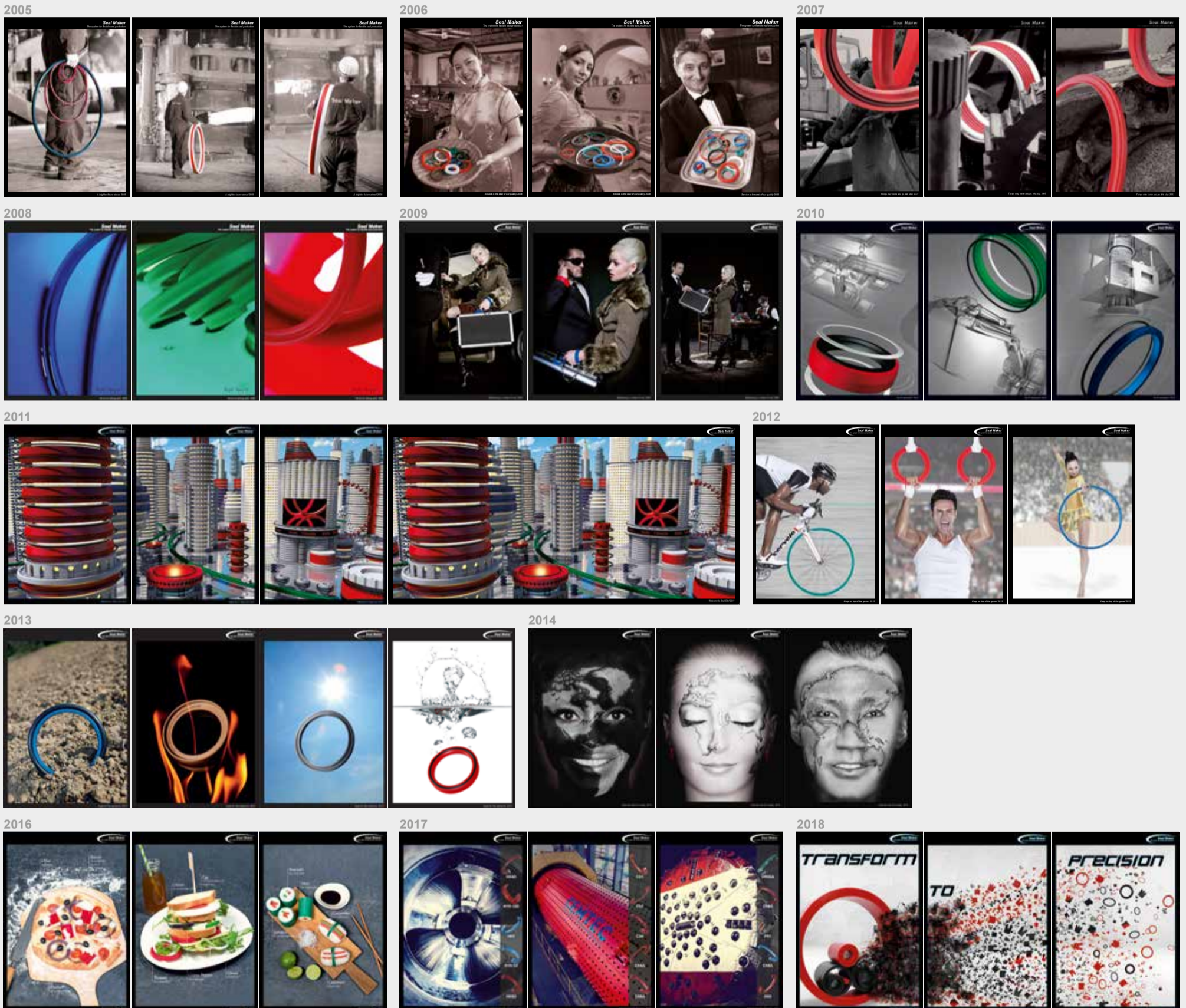
- When does it make sense to purchase a Seal Maker system for the production of machined seals?
- What is the “Full-System-Package” (FSP)?
- What kind of support does Seal Maker offer “after” the purchase of a Seal Maker system?
- What are the advantages of Seal Maker semi-finished products?
- Which delivery times can generally be expected?

...did you know that Seal Maker prepared and summarised the answers to these and many more questions in the FAQs section of the website? Click here and start browsing: www.seal-maker.com/faqs

Designed to be efficient!

一流的设计对我们的数控系统开发和生产中起着至关重要的作用。Seal Maker 同样注重广告和营销手段的精准性和质量。2005年推出的海报系列已经成为了我们传统的一部分。华丽的绘画，创造性的摄影，精致3D的呈现，最初的口号——专业人士正致力于创造年度格言和新海报系列的设计。在三个令人印象深刻的广告项目中，Seal Maker 已经获得了地区广告奖。下面我们将向您展示过去几年里流行的物品的珍藏。

First-class design plays an essential role in the development and production of our complete CNC systems. Seal Maker also focuses on precision and quality in advertising and marketing measures. The poster series introduced in 2005 is now part of our tradition. Ornate paintings, creative photo shoots, elaborate 3D conversions, inventive slogans - when it comes to our annual motto and the design of our new poster series, professionals are at work. For three of its impressive advertising projects, Seal Maker was awarded for the regional advertising prize. Below you can take a look at the collection of trendy objects from the last years:



现在就预订吧

你的办公室里有一张或其他的海报？还是没有？预定你最心仪的吧
marketing@seal-maker.com

Order now!

Does one of the posters decorate your office? It does not? Then order your favourites at marketing@seal-maker.com

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Errors and omissions excepted.