

特刊17 SPECIAL EDITION 17

客户杂志 Magazine for customers and partners



# Editorial



#### 敬爱的读者

在此借我司"密封科技"杂志特刊出版的机会, 非常高兴与大家 分享一个好消息Seal Maker在中国上海成立的全资子公司"速麦 密封科技(上海)有限公司"已正式运营。

这是我们一贯秉承的理念: 走近我们的伙伴和客户,为我们遍布 世界各地的伙伴和客户提供更好更及时的建议和服务。

正因如此, 在中国最重要的工业城市建成我司新的物流和服务中 心, 让其更加贴近我们中国的客户, 我也非常欣慰, 我们新团队积 极进取, 且具有经验. 在本期刊您会详细地了解他们

我们的中国分公司获益于富有**30**年车削生产和研发经验,强有力 奥地利团队的技术支持,可以为您提供更加专业服务。

在上海我们不但备有大量奥地利生产的优质原材料/管料库存,还可为您提供高品质车削密封件。

我们在奥地利的研发部门不断提高自身的产品质量同时,还在拓 展产品的应用领域,我们的专业知识必将有益于国际市场。

我希望能够在中国看到一个成功的,、繁荣的、共赢的合作, 我们 承诺将尽我们最大努力给予您全领域的服务和支持。

谨上, Johann Glocknitzer Dear readers,

I am very pleased to present this special issue of our customer magazine "Seals Technology" on the occasion of the opening of our new Seal Maker branch "Seal Maker China" in Shanghai to you.

It has always been Seal Maker's philosophy to maintain close relationships to all our partners and customers worldwide and to serve them with advice and assistance any time.

Thus, the establishment of a new logistics and service hub in one of China's major industrial cities was a logical step in order to be as close as possible to our Chinese customers. I am very happy to work with an experienced and ambitious team in our new branch. They will be introduced closer inside this newsletter.

Our Chinese branch will also benefit from the expertise of our experienced staff in Austria where the technology of machined seal production has been developed and improved for more than 30 years.

We will serve our local customers from a large stock with high quality products and raw materials developed and produced in Austria and we will produce high quality machined seals at site in Shanghai as well.

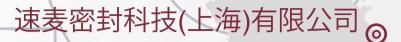
Our Austrian R & D department is constantly striving to improve our product quality and extend the application fields of our products. The resulting Know-How will definitely be very useful on all our international markets.

I am looking forward to a prosperous and successful cooperation with all our customers in China and I assure you that we will do our best to serve and assist you in any respect.

Yours, Johann Glocknitzer







# Seal Maker China

在这里很自豪地告诉大家, Seal Maker 在中国最主要的现代化城市——上海, 建立了全资子 公司, 上海因其发达基础建设和优越的地理位置而闻名于世。

通过过去几个月的艰辛付出,我司逐渐完善,并最终全面运营。SML 车削车床安装完毕,仓库 储备了各种原材料,还有即将上线的ERP系统,整个团队都在期带着一个完美开端

We are proud to announce the opening of the new Seal Maker site in China. Shanghai, one of the major industrial cities in the People's Republic of China is the new logistics and service hub of Seal Maker in China due to its ideal geographical location and perfect infrastructure.

The hard work of the last few months has paid off and our new site is now running in full operation. The SML machines have already been successfully installed, the warehouse has been finished and a corresponding ERP system has also been installed. The highly motivated team in China is now looking forward to numerous incoming orders - we wish them a successful start!

# 我们的中国团队: Our Team in China:

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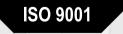
# ISO Certification: V

2007 年Seal Maker 奥地利 在人事管理领域成功的引入了质量管理认证系 统ISO 9001:2015,由于Seal Maker全面满足质量管理认证的要求,使得 我们再次获得认证,这也进一步说明Seal Maker是一家值得信赖并具有 创新能力的公司.



The management system ISO 9001 in our HQ's in Austria ensures for constant quality and effectiveness within the company since its introduction in 2007. Through compliance with all current requirements for quality assurance, Seal Maker has been awarded again with the current certification for ISO 9001:2015. That makes Seal Maker not only a reliable supplier but also an innovative and competent partner.

# Certificates



所有的Seal Maker生产的数控机床都获得CE证书, 设备文件也包含了测试记录和精确度 校对等证明. 而我们的原材料也有各类相关的证书如FDA, KTW, RGD, 可根据需求提供 相关证书和技术参数.。

All Seal Maker machines always get dispatched with a CE certificate. A special acceptance certificate with test record, proving the accuracy of the machine, is included in the machine documentation. For seal materials various certificates are available compliant to FDA, KTW, RGD, and also material data sheets and safety data sheets. Certificates for seals are available on request.

🔵 element"

rding to the requirements of

ORSOK M-710 Edition 3: 2014

BS EN ISO 23936-2 [ISO23936-2:2011(E)] (Rapid gas decompression resistance)

#### PASSED

| est gas:           | 90/10 mol% CHJCO, |
|--------------------|-------------------|
| est temperature:   | 100 ±2 °C         |
| est pressure:      | 150 +10/-5 bar    |
| umber of cycles:   |                   |
| ecompression rate: | 20 ±2 bariminute  |
|                    |                   |

# About Seal Maker...

# 关于SEAL MAKER:

- 成立于1997年,位于奥地利的艾森城
- 营业额一千四百万欧元(2016)
- 106名员工(2016)
- 新厂房建设于2004年,2010年扩建

# THE COMPANY:

- Founded in 1997 in Eisenstadt, Burgenland (Austria)
- Turnover € 14 mio. (2016)
- 106 employees (2016)
- New factory building (2004) + further expansion (2010) in Pöttelsdorf, Burgenland

# About the SML System...



SEMI-FINISHED PRODUCT

LATHE

SEALS

# 服务是质量的密封剂:

质量保证并不止于交货,而是我们整个服务体系的一部分. 它包含:

- 值得信赖的订单流程
- 灵活多样的产品规格
- 快速的生产周期

# **KEY FACTS:**

Quality at Seal Maker does not end with product shipment, but is an integral part of our service. This includes:

- Reliable consistent order processing
- High flexibility in the production of standardized and specialized products
- Rapid production cycles

• 对待客户的专业态度

# 生产流程:

- 在软件中预选一个规格型号
- 根据操作流程挑选所需的工具和生产示意图
- 输入确定好的生产编码
- 把原料固定在设备上
- 生产所需的密封件

Reliable professional and personal attention to our clients

# SEAL PRODUCTION PROCESS:

- Select a pre-programmed shape from the software
- Follow the instruction to finalize a tool selection, set-up plan and tolerance sheet
- Transfer the automatically generated code to the SML machines
- Clamp the chosen material in the machine
- Produce the required seal

# THE SML Family

INNOVATIONSPREIS'11

Seal Maker的数控车削系统能够迅速,准确地把原材料加工成各类高品质液压,气压密 封件。在研发中积累大量的专业技术以及高性价比为产品的高品质和精确的生产提供了 保证。零配件的设计和构造确保了国际标准和通用性。在我们的培训中心定期进行大量 的关于设备安装,调试,维修的研讨会。标准配置包括车床,SML软件,切割设备和紧 固装置另外还有碎片装置及废碎片的抽吸装置,总而言之每台设备都可以和不同的工具 组合 The Seal Maker CNC machining systems guarantee a rapid and efficient machining of semi-finished materials into high-quality hydraulic and pneumatic seals. Extensive know-how in R&D as well as a highly competitive price/value ratio provide for equally high product quality and operational efficiency. Construction and design of accessories (e.g. tools) adhere to international standards and enable universal usability. Extensive seminars in our training center as well as installation, maintenance and repair on site are a matter of course for Seal Maker.

The standard package includes the basic machine, SML software, cutting tools and tool holders, as well as a chip cutter and a chip suction unit. Each machine is also available with driven tools.



- 多种配件
- 详细的维护,安装,及操作文档
- 舒适和精准的紧固设备

- 屑片的破碎和抽吸装置
- 多种配件
- 详细的维护,安装,及操作文档
- 舒适和精准的紧固设备

- 精确的维护,安装,和使用说明
- 破碎和抽吸装置
- 多选性配置
- 零配件多样化

- A powerful complete CNC system for manufacturing seals from 450 mm (18 inches) to 1100 mm (43 inches) outside diameter (limited operation from 360 mm (14.5 inches) is possible)
- User-friendly SML system software on an integrated PC module
- A complete tool set
- Chip cutter and chip suction
- A wide range of accessories
- Including detailed documentation on maintenance, installation and operation
- Optionally available with driven tools
- Comfortable & precise clamping system

- High-performance CNC complete system
- For seals between 700 mm (27.5 inches) and 1850 mm (70 inches) in diameter (limited operation from 450 mm (17.5 inches) is possible)
- User-friendly SML system software on an integrated PC module
- Complete tool set
- Chip cutter and chip suction
- A wide range of accessories
- Includes detailed documentation on maintenance, installation and operation
- Optionally available with driven tools
- Comfortable & precise clamping system

- A high-performance complete CNC system for manufacturing seals of up to 520 mm (20.5 inches) in diameter.
- User-friendly SML software, including a PC
- Equipped with an effective 8-position turret for rapid tool change and short set-up times
- A complete tool set
- Accurate documentation for maintenance, installation and operation
- Chip cutter and chip suction unit
- Optionally available with driven tools
- Wide range of accessories

# **The Sealing Materials**

# 半成品材料

研发,生产并推广数控车床加工使用的高品质筒料和棒料是Seal Maker Produktions- und Vertriebs GmbH公司的核心领域。我们先进的生产技术能够很好地覆盖广阔的密封应用范围。每件从我们工厂出品的筒料都经过多重检测,不论在质量上还是价格上都是为我们客户加强竞争力的重要因素。除库存大量标准规格外,特殊规格和FDA标准的材料也能够在短时间内提供。

\*聚氨酯 | 丁晴橡胶 | 三元乙丙橡胶 | 氟化碳橡胶 | \*AFLAS® | 硅酮 | 聚甲醛 | 聚 酰胺 | 聚四氟乙烯 | 其它

## **Semi-finished Products**

The development, production and marketing of high quality semi-finished products in form of bars and tubes for the machining of sealing elements is an integral part of the core competence of Seal Maker Produktions- u. Vertriebs GmbH. Due to our most modern manufacturing technology we are able to cover the whole spectrum of seal applications. Our semi-finished billets, each of which is controlled several times before dispatch, are one of the most important components for our customers, contributing to their competitiveness by offering high quality at a reasonable price. Besides the wide range of standard dimensions which are carried on stock, special dimensions are also available within short delivery times in all materials and FDA-qualities.

\*PU | NBR | EPDM | FPM | \*AFLAS  $\ensuremath{\mathbb{R}}$  | SILICONE | POM | PA | PTFE | PEEK | and many more

|   | Description                     | Color | Application temp. | Hardn. at 20°C  |
|---|---------------------------------|-------|-------------------|-----------------|
| Si  | PU<br>U500-R95<br>red           |       | -30 to +125°C     | Shore A 95 +/-2 |
|   | PU<br>U505-P79<br>petrol        |       | -25 to +100°C     | Shore A 79 +/-3 |
| to hydroly  | PU<br>U510-G88<br>light green   |       | -30 to +115°C     | Shore A 90 +/-2 |
| resistant   | PU<br>U520-OR95-HT<br>orange    |       | -30 to +135°C     | Shore A 96 +/-2 |
| ne grades   | PU<br>U530-B95-LT<br>light blue |       | -50 to +105°C     | Shore A 95 +/-2 |
| * all Polyurethane grades resistant to hydrolysis | PU<br>U540-VI95-CR<br>violet    |       | -30 to +115°C     | Shore A 95 +/-2 |
| POLYURETHANE * all                                | PU<br>U550-GM95<br>dark red     |       | -30 to +125°C     | Shore A 95 +/-2 |
|   | PU<br>U570-D57<br>blue          |       | -30 to +125°C     | Shore D 57 +/-3 |
| J<br>L  | PU<br>U580-D57G<br>grey         |       | -30 to +125°C     | Shore D 57 +/-3 |
|   | PU<br>U203-G95<br>green         |       | -30 to +105°C     | Shore A 95 +/-2 |
| NBR   | NBR<br>N107-B85<br>black        |       | -25 to +100°C     | Shore A 85 +/-5 |
|   | NBR 95<br>N109-B95<br>black     |       | -25 to +100°C     | Shore A 95 +/-5 |
|   | NBR FDA<br>N111-W85<br>white    |       | -22 to +100°C     | Shore A 85 +/-3 |
|   | H-NBR<br>HN112-B85<br>black     |       | -25 to +150°C     | Shore A 85 +/-5 |
|   |                                 |       |                   |                 |

|          | Description                           | Color | Application<br>temp. | Hardn. at 20°C  |
|----------|---------------------------------------|-------|----------------------|-----------------|
| W        | FPM<br>F111-B85<br>black              |       | -25 to +210°C        | Shore A 85 +/-5 |
| FPM      | FPM-RGD<br>F800-B85-RGD<br>black      |       | -30 to +210°C        | Shore A 85 +/-5 |
|          | EPDM<br>E131-B85<br>black             |       | -50 to +130°C        | Shore A 85 +/-5 |
| EPDM     | EPDM FDA<br>E132-W85<br>white         |       | -50 to +100°C        | Shore A 85 +/-3 |
|          | EPDM KTW<br>E133-W270<br>black        |       | -45 to +120°C        | Shore A 85 +/-5 |
| SILICONE | Silicone FDA<br>S102-R85<br>red       |       | -55 to +210°C        | Shore A 85 +/-5 |
| SILIC    | Silicone FDA<br>S103-BL85<br>blue     |       | -55 to +180°C        | Shore A 85 +/-3 |
| TFE/P    | AFLAS<br>AF101-B85<br>black           |       | -15 to +210°C        | Shore A 85 +/-5 |
|          | PTFE-P FDA<br>T101-W<br>white         |       | -200 to +260°C       | Shore D 51 - 60 |
| PTFE     | PTFE-F<br>T105-G<br>grey              |       | -200 to +260°C       | Shore D 55 - 64 |
| РТ       | PTFE-40%<br>T110-BR40<br>bronze brown |       | -200 to +260°C       | Shore D 62 - 67 |
|          | PTFE-25%<br>T125-C25<br>carbon grey   |       | -200 to +260°C       | Shore D 62 - 67 |
|          | POM FDA<br>P101-WE<br>white           |       | -50 to +100°C        | -               |
|          | PA FDA                                |       | 40 to ±90°C          |                 |

# 材料一览

|   | H-NBK       | H-NBR RGD<br>HN900-B85-RGD<br>black    | -20 to +150°C | Shore A 85 +/-5 |  |
|---|-------------|--|---------------|-----------------|--|
|   |             | H-NBR RGD LT<br>HN901-B85-RGD<br>black | -40 to +150°C | Shore A 85 +/-5 |  |
|   | M<br>M<br>H | FPM<br>F109-BR85<br>brown              | -20 to +210°C | Shore A 85 +/-5 |  |
| Ľ | Ľ.          | FPM FDA<br>F110-BR85<br>brown          | -25 to +210°C | Shore A 85 +/-5 |  |

| ICS   | PA FDA<br>A112-WC<br>natural      | -40 to +90°C  | -               |  |
|-------|-----------------------------------|---------------|-----------------|--|
| PLAST | PEEK natural<br>PK100-CN<br>beige | -50 to +250°C | Shore D 90      |  |
|       | UHMW - PE<br>PE1000-HD<br>white   | -200 to +80°C | Shore D 60 - 65 |  |



聚氨酯已成为现代密封科技技术所必不可缺的材料。在缸用和轴用密封领 域皆占有主要的市场份额。Seal Maker的聚氨酯筒料以其极高的材料质量见 长。使用Seal Maker聚氨酯加工的密封胶在很多应用范围都超过其它密封或 筒料生产商的标准寿命。原因之一在于认真挑选为Seal Maker所用的原料, 另外就是"直接"的生产技术。相对于热塑性合成产品,Seal Maker的聚 氨酯筒料浇铸而成,使材料在聚合过程中能够最大幅度地培育出其物理性 能。省略了对材料性能有负面影响的后续加热,成型。

# 高品质聚氨酯材料型号为U5XX及U203,提供绝佳的耐磨及摩擦性能。详情请见我们的材料数据表。

Polyurethanes have gained a substantial importance in modern seal technology. They hold a dominant market share in the sector of rod seals and piston seals. Seal Maker's Polyurethane semi-finished products stand out due to their highest material quality. In many applications seals made of Seal Maker Polyurethane outperform the service life of seals made out of competitive manufacturers' materials. The reason for this can be attributed on the one hand to the careful selection of raw materials, and on the other hand to the "direct" manufacturing technology. Unlike the thermoplastic processed products, the cast semi-finished products of Polyurethane billets made by Seal Maker have the greatest degree of freedom to develop their physical properties during polymerization. Any kind of negative influence during the polymerization process by heating up and plastic deformation is avoided with our technology.

The high quality Polyurethane versions U5XX and U203 offered by Seal Maker are hydraulysis resistant (H-PU). More information you can find in our material data sheets.

应用于支撑圈和导向圈以及特制密封件和预加应力密封件的硬弹和氟化合成橡胶补齐了Seal Maker的筒料供应目录。Seal Maker特别注重这些产品的供货商能够在各方面达到我们以及我们客户对质量、价格和诚信严格但合理的要求。与供货商之间良好的合作关系、齐全的供货目录配合一致的库存管理为供货迅捷提供了保障。不仅规格系列按照车削密封的加工标准要求调节,各种所提供的材料配方更是全面覆盖密封应用领域所需

聚甲醛 | 聚酰胺 | 聚四氟乙烯 | 其它

Hard plastics and fluorinated thermoplastics, as used for back up rings and guide rings, as well as for special and pre-loaded seals, complete the product range of Seal Maker semi-finished products. Seal Maker takes care that the suppliers of these products fulfill the high quality requirements as set by itself and by its customers. The excellent business connection we maintain with our suppliers, a broad product line, in combination with efficient warehouse management, guarantee prompt availability. Not only the dimensional range of semi-finished products is well adapted to the requirements of machining, it is also the wide variety of different material compounds which covers all the requirements of seal application.



合成橡胶,也经常被称为橡胶材料,是密封科技中必要的补充。虽然它在很多应用领域被"新式"的聚氨酯所替代,但合成橡胶大范围的耐热性和耐化学性使其成为密封技术中所不可缺少的组成部分。Seal Maker只采用世界知名供货商的原料,配合先进的Seal Maker加工技术,给客户以保障:经过验证的材质和节约的形状。这不仅从性价比中,也从标准与非标准尺寸和各种材料合成的供货中反馈给客户。所有Seal Maker合成橡胶筒料都带有塑料外套。即使它们自身硬度低、弹性高,依然可以很好地被车削加工。

#### 丁晴橡胶 | 三元乙丙橡胶 | 氟化碳橡胶 | \*AFLAS® | 硅酮

Elastomers, often referred to as rubber materials, are a reasonable completion of the product range. Although they got widely pushed out of many applications by the modern Polyurethanes, the elastomer products remain important in seal technology due to their wide spectrum of thermal and chemical resistance. Seal Maker works exclusively with rubber compounds made by internationally highly recognized batch manufacturers. This, in conjunction with Seal Maker's modern processing technology, is the guarantee for well approved material compounds and an economical shaping. The resulting benefit for our customers is an excellent price-quality ratio, and also prompt availability of both standard and special dimensions and materials. All Seal Maker semi-finished products made of elastomer materials come in a hard shell, which makes them easy machinable in CNC lathes, despite the low hardness and high elasticity.

NBR | EPDM | FPM | \*AFLAS® | SILICONE



特殊工料

#### 需要根据您的需求订制特殊规格的密封件

Special Materials are available on request.





POM | PA | PTFE | PEEK | diverse compounds

# **Profile-Overview**

在很短的周期内可生产各种规格(标准和非标准产品)液压和气动密封产品

我们的密封件专家,通过他们丰富的经验和专业知识,帮助您设计密封产品,为您提供建议

Hydraulic and pneumatic sealing elements are available in all standard and non-standard profiles and sizes at short term.

Our sealing specialists, with their extensive knowledge, can offer help with the design of customized seals and provide suggestions for the final assembly.

| Wipers  |         |
|---------|---------|
| Profile | Туре    |
|         | WR01    |
|         | WR01A   |
|         | WR02    |
|         | WR02A   |
|         | WR02B   |
|         | WR02C   |
|         | WR02D   |
|         | WR03    |
|         | WR04    |
|         | WR07    |
| K       | WR08    |
|         | WR11    |
|         | WR12    |
|         | WR13    |
|         | WR13_E2 |
|         | WR14    |

Symmetrical seals

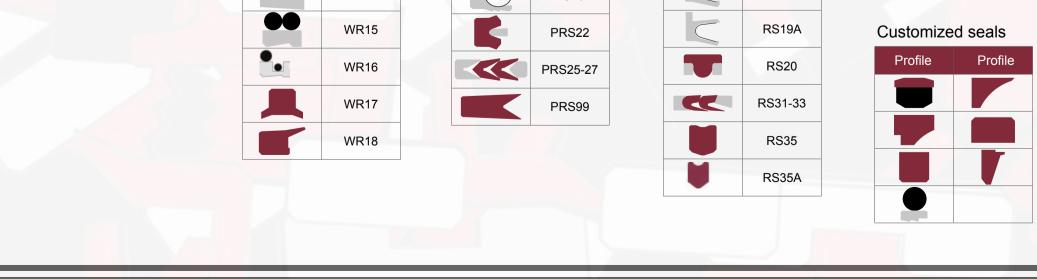
| Symmetrical seals |           |  |  |
|-------------------|-----------|--|--|
| Profile           | Туре      |  |  |
| K                 | PRS06     |  |  |
| K                 | PRS06A    |  |  |
|                   | PRS06B    |  |  |
|                   | PRS06C    |  |  |
|                   | PRS06D    |  |  |
|                   | PRS06E    |  |  |
|                   | PRS07     |  |  |
|                   | PRS10SP   |  |  |
|                   | PRS10-12  |  |  |
|                   | PRS10-12A |  |  |
|                   | PRS13-15  |  |  |
|                   | PRS18     |  |  |
|                   | PRS19     |  |  |
|                   | PRS19B    |  |  |
|                   | PRS19C    |  |  |
|                   | PRS19D    |  |  |

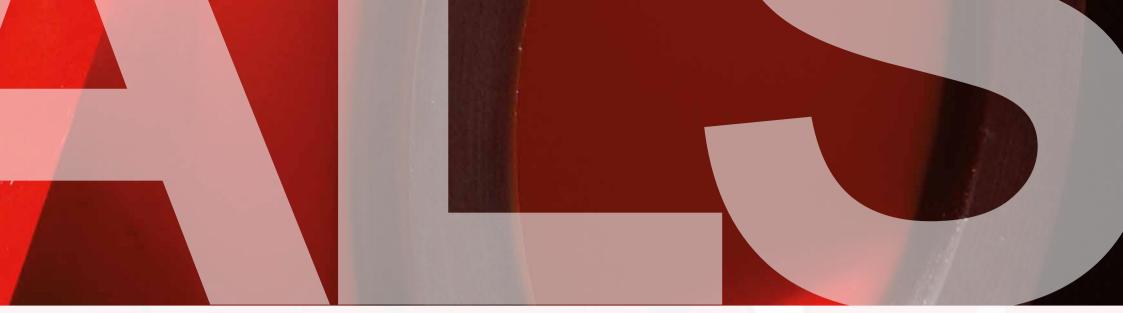
| Rod seals |          |
|-----------|----------|
| Profile   | Туре     |
|           | RS02B    |
| K         | RS02C    |
|           | RS03     |
|           | RS04     |
|           | RS04A    |
|           | RS05     |
| Ľ         | RS05A    |
|           | RS08     |
|           | RS09     |
|           | RS09A    |
|           | RS09B    |
|           | RS10-12B |
|           | RS91     |
|           | RS91B    |
|           | RS16     |
|           | RS17     |
|           | RS17A    |
|           | RS17B    |
|           | RS17C    |
|           | RS17D    |
|           | RS17E    |
|           | RS19     |
|           |          |

Rod sealsProfileTypeCRS01CRS01ACRS01BCRS01CCRS02CRS02A

Static seals

ProfileTypeProfileTypeImage: Image: Image





# Piston seals Profile Туре PS01 PS01A PS01B 2 PS01C F PS02 PS02A PS03 PS04 PS05 PS05A PS08 PS08A PS08B × PS08C X PS08D PS08E PS08F PS81 PS81B PS81C **PS09**

## Piston seals

| Profile | Туре  |
|---------|-------|
|         | PS19  |
|         | PS19A |
|         | PS20  |
|         | PS23  |
|         | PS35  |
|         | PS35A |

| Back-up rings |       |  |
|---------------|-------|--|
| Profile       | Туре  |  |
|               | BUR08 |  |
|               | BUR09 |  |
|               | BUR10 |  |
|               | BUR11 |  |

| BUR11 |
|-------|
| BUR12 |
| BUR13 |
|       |

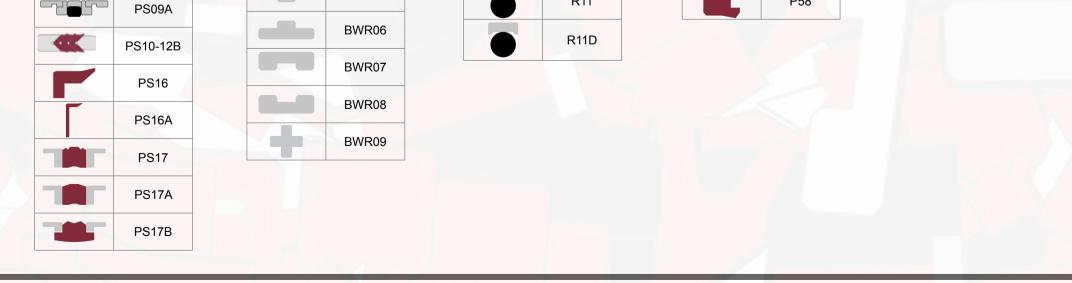
# Guide ringsProfileTypeBWR01BWR01BWR01ABWR03BWR03BWR04BWR05BWR05

# Rotary seals

| Profile | Туре  |
|---------|-------|
|         | OS01  |
|         | OS01A |
|         | OS02  |
|         | OS02A |
|         | OS03  |
|         | OS03A |
|         | OS08  |
|         | OS08A |
|         | R03   |
|         | R04   |
|         | R04A  |
|         | R05   |
|         | R05A  |
|         | VR06  |
|         | VR07  |
|         | R08   |
|         | R08D  |
|         | R09   |
|         | R09A  |
|         | R10   |
|         | R10A  |
|         | R11   |
|         | D.U.D |

# Mining seals





BLS 120 billet loading system

# PIMP YOUR SML WITH

# OUR LATEST TECHNOLOGIES!

# 选项 - 自动填装装置

我司的最重要的职能之一就是为密封产品研发和推广更加有效的机器设备. 基于我们已 经推出了我们的SMLe系列,我们对其功能功能进行了成功的升级

当今"车削密封技术"已经作为小到中批量生产所认可,大到上千件,为了满足终端客户的快速供货,高品质的需求

新的,灵活,优化"筒料自动填装系统"使其成为可能,筒料的长度在120mm到170mm 之间,直径在20到120mm,可以做到自动紧固填装,机器设备不需要停机进行人工填充. 自动填料装置设计更加灵活,生产周期更短

新型管料自动装载系统即适配于SML500e机床。

# **Billet loading system**

The development and marketing of highly efficient machine systems for the production of seals and plastic parts is one of the key competences of Seal Maker. Since SMLe-series have been introduced on the market, we have successfully offered upgrades for existing machines on a regular basis.

Nowadays the "lathe-cut seal technology" has become a recognized manufacturing technology for seals in small numbers and medium-sized series, up to series of several thousands of pieces, in order to meet end-user requirements within short delivery times and with a high quality standard.

The new, flexible and optimised "bar loading system" makes it possible to feed standard billets with a length between 120 and 170 mm, and a diameter between 20 and 120 mm into the machine and clamp it automatically in the chuck, so that the machine operator does not need to continuously feed the billets manually. This billet loading system has been designed highly flexible, so that the change to another billet dimension requires only a minimum period of time.

The new bar loading system is available for SML 500e machines at once.

## 测量,矫正,存档

这是我们为SML车床家族整合的测量三个特征. 尤其针对硬塑料部件,当然也适合多部件的聚氨酯和橡胶类产品,高敏感度的测量装置能够在粗加工后就对设计尺寸和生产尺寸加以比较,然后矫正刀具位置,这样使得成品更加精准

## Measuring, correcting, documenting

These are the 3 characteristics of our integrated measuring system for the SML machine family. Especially for hard plastics, but also for many processing steps of Polyurethane or rubber, the highly sensitive measuring sensor can compare the actual dimension with the design dimension already after roughing, and adjust the tool positioning for the next working step, so as to compensate any possible deviation from the correct dimension.

测量装置也可以为多部件产品中的单一零部件测量数据存档,我们的技术工程师能够帮助您完成升级组装

The measuring sensor can also be used when an automated documentation for certain measurements during the production of serial parts makes sense or appears to be necessary. The simple installation also enables a subsequent assembling into existing machines by our service technicians.

请观赏以下视频: 这就是它的工作原理。您可以在 www.seal-maker.com上鉴赏到有关管料自动装载系 统的视频。

#### Watch this Video:

This is how it works! On **www.seal-maker.com** you can view a video showing the bar loading system.





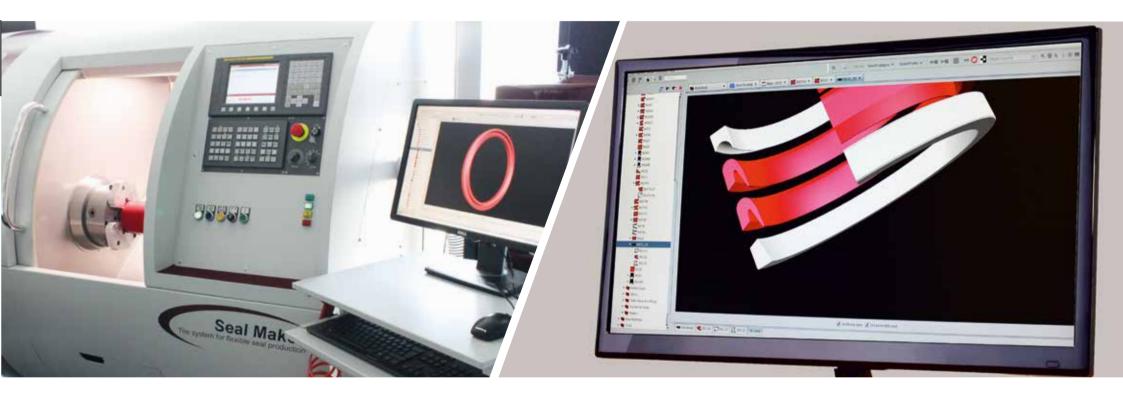


## 喷气装置

Airblast喷气装置又为SML车床系统增添了一种选择,通过在刀具顶端安装的空气 压缩喷嘴装置,切割产生的碎屑会被及时清除,这样整个生产过程将更加准确高 效。Airblast可以根据客户的需求手动控制(FANUC0iTC只能手动控制)或是在编 入CNC程序后通过M-命令自动控制.该装置适用于任何车床而且BLS120型可以和 SML500e,SML500e,SML1000e,SML1800e匹配批量生产.另外对于没有该装置的车 床也可以后期改装. 气压喷嘴装置需要空气压缩设备(压力至少4Bar),客户可自己采 购或从我司订购

## Airblast

AirBlast allows the removal of swarfs by means of compressed air blasts directed to the tool top. With it, production can be carried out even more effectively. If required, users can operate the AirBlast manually during machining processes (only manual control with FANUC 0iTC) or via M-commands in the CNC program. This guarantees a more efficient manufacturing. The AirBlast option is available for every SMLe machine. AirBlast is already a standard equipment in SML500e with BLS120 Option, SML1000e and SML1800e. The option can further be retrofitted on all the other machine versions. The air compressor (min 4 bar) needs to be provided by the customer or can be quoted separately.



# SML软件系统

在微软操作系统的基础上经过多年的研发软件"SML软件系统"已有基础版和专业版供 客户选择,目前版本4.4.5包含219种密封截面,它不仅运行稳定,易于操作,而且用该软 件生产密封件的生产周期短

#### 特色:

- 多种模板适合各种密封件的设计
- 静态模拟
- 数控编辑
- 根据客户需求编程
- 根据客户的名称出图

## SML System Software

The MS Windows based CAD/CAM "SML System Software" has been continuously developed over the years and is available in Basic and Professional version. The current version 4.4.5 contains 219 profiles and is not only one of the most stable and user-friendly versions, but also one of the most efficient ones regarding short machining cycles, i.e. short production times of the finished products. The software provides a number of features such as 3D view, quick access to profiles, early collision warning system when entering nominal sizes, improved zoom possibilities, various individual settings, link to SealCalc and laser software.

Features:

- 尺寸可调(各种绘图参数,显示参数,测量参数,与所看到的一致)
- "VARIO" module for individual seal design
- Statistic module
- CNC Editor
- Programming of customer specific profiles
- Drawing with individual letterhead
- Dimensional changes (parametic drawing, showing actual measurements, what you see is what you get)





## 选项 - 驱动装置

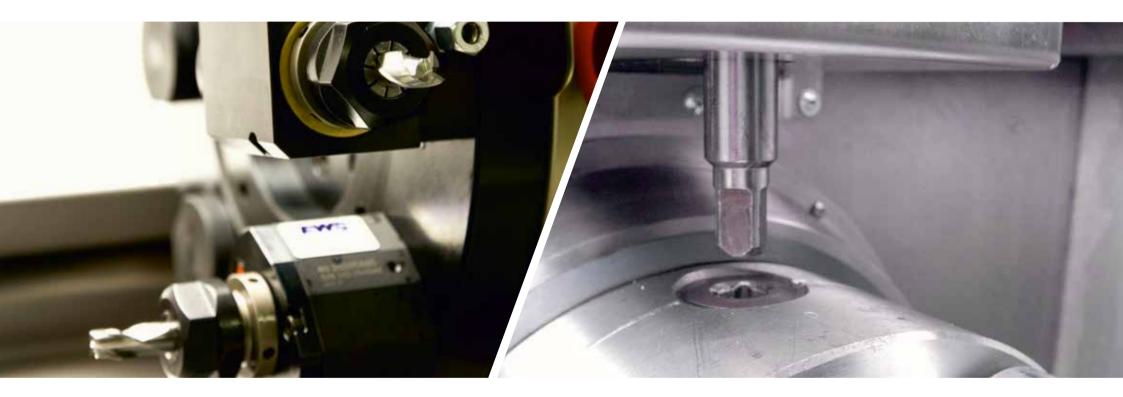
通过增加功能您的SMLe系统可以具备磨,铣功能,拓展了您的产品系列,可以生产"工程塑料部件"最大的优点在于:它可以在您原有的设备SML500e,SML1000e,SML1800e进行改装,使得您的设备性价比更好,而且车削范围更广

通过一个更加合理性价比的升级拓展您现有设备的可能性,使您具备生产新的密封产品 系列机会

## **OPTION PLUS – Driven tools**

With Option Plus you will be able to extend your SMLe system by milling and thus, enlarge your product portfolio with the possibility to produce "engineered plastic parts". The big advantage: driven tools can be assembled in previously installed SML500e, SML1000e and SML1800e models. When this refitting set was developed, special importance was given to a technically useful, but also cost-effective solution without limitations to the turning technology.

Extend your possibilities with a cost-effective upgrade of your existing machine, or use this opportunity to acquire a new seal production system with all its manufacturing possibilities.



## 选项 - 自动化手动卡盘

我们的研发成果之一允许我们连续全自动生产一组密封件。这种自动化手动卡盘装置可 以一次性连续加工一米长的原料,同时保留其加工标准原材料的特点。这就是说填料装 置可以选择原有的填料方式,也可以选择自动化填料,只需在原有的机器上正确安装

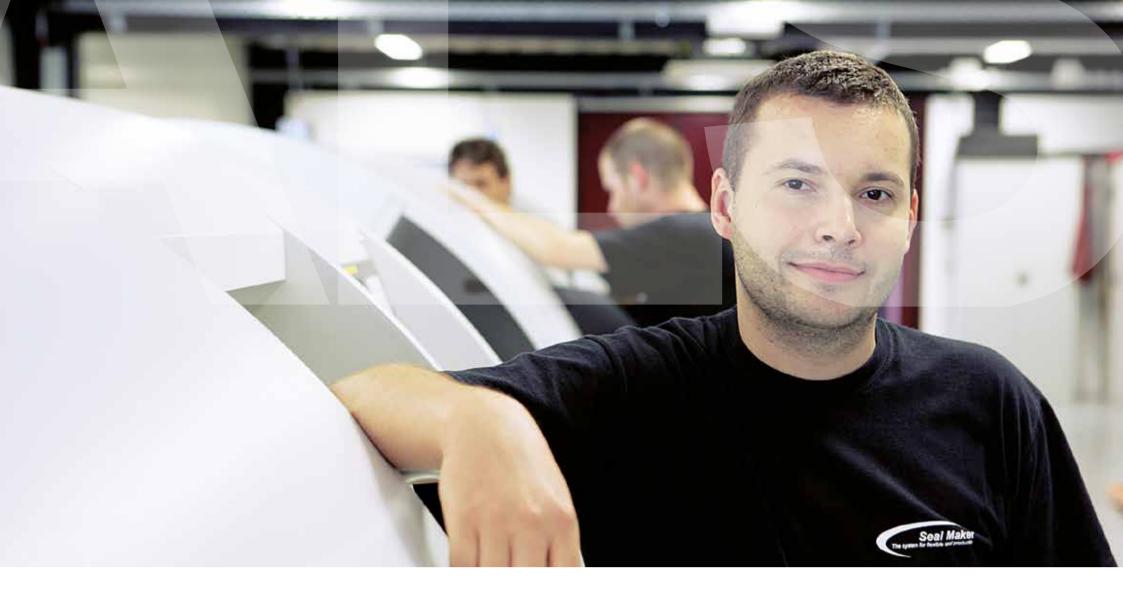
## **OPTION Automated hand-clamping chuck**

One of our developments allows the full automatic production of small series of seals. The automation option of the hand-clamping chuck of the SML500e system enables the processing of material bars with a length of up to 1m as well as of standard material billets. A bar feeder can also be used in this option. A manual operation, which has been applied so far, will still be possible. During the development, special attention was given to a simple operation and an effective set-up of the machine.

该装置使得SML500e在连续生产相同规格的密封件时缩短的生产周期,性价比更高。您 既可以选择带有该装置的新设备,也可以在原设备上升级

The automation option of the SML500e system makes also the series production of seals simple and cost-efficient. This option may be ordered when purchasing a new machine, but it is also available as an upgrade of already installed SML 500e machines.





# 客服

#### 客服是我们质量体系中的密封剂

质量保证并不结束于发货,而是我们整个服务体系的一部分. 客户是我们生意伙伴,他 们会得到我们专业的技术,谦恭的态度,有好的服务. 我们的原则是,尊重各地区伙伴 的商业需求,支持他们达到他们的商业目标

#### 为此我们提供:

- 对特殊密封件方案的建议和咨询
- 根据客户的需求研发密封件
- 帮助完善软件设计
- 技术培训
- 安装维护设备
- FSP套餐
- 协助运输
- 实验测试
- 颁发培训证书
- 软件更新
- 根据客户需求给予技术支持

# SERVICE & CUSTOMERS

#### Service is the seal of our quality

Quality at Seal Maker does not end with product shipment, but is an integral part of our service. A customer is a business partner, whom we support with professional, courteous, and friendly service. True to our basic principles, we respect our clients' regional business domains and support them continuously in achieving their goals.

We support our clients with:

- Consulting on special sealing applications
- Profile development based on special customer designs
- Help with programming of complex profiles
- Training courses with our service technicians
- Start up and maintenance of machines
- FSP-Service
- Support with transport
- Laboratory tests
- Issuing of training certificates
- Software updates free of charge
- Supply of individualized information for customers



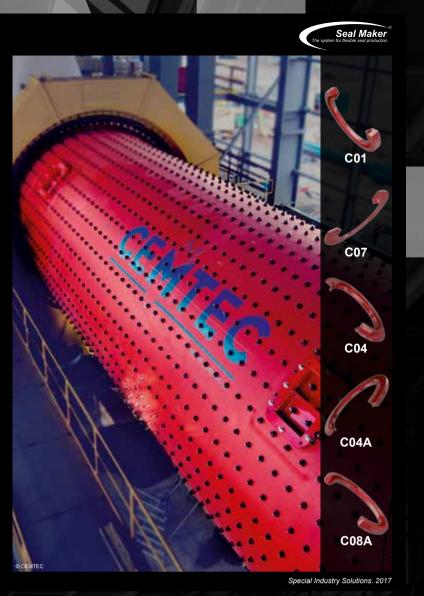


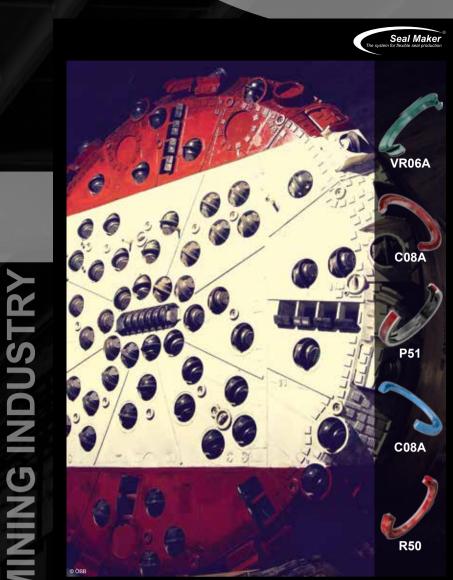


# Special Industry Solutions



CEMENT INDUSTRY





Special Industry Solutions. 2017

#### 特殊行业解决方案

当涉及到特定行业,如水电,采矿或水泥行业,经验和专业知识是必不可缺的。为了满 足日益增长的需求,Seal Maker提出了针对性的应用解决方案,您可以在2017年新刊登 的"特殊行业解决方案"海报里阅读到相关信息。生动的海报内容包含了适合不同工业 领域的密封解决方案。 Experience and expertise are required when it comes to specific industries such as hydropower, mining or the cement industry. To meet the growing requirements, Seal Maker presents targeted application solutions, which are reflected under the title "Special Industry Solutions" in the poster series 2017. The expressive posters show the appropriate sealing solutions for every industrial field.

# 性能强大——我们的产品介绍 Powerful: Our brochures

特殊行业解决方案——这些都是特殊的密封解决方案,由于所需的故障安全,所需的性能以及成本的原因,它们的"关键性"是毫无疑问的。用于水电,采矿或水泥行业的水轮机,研磨机,碎石机,隧道挖掘机等,根据型号和设计不同都需要各种各样的密封解



决方案。Seal Maker能够提供最符合您需求的密封件。请阅览我们最新的宣传册"特殊行业解决方案"系列,内容包含为您量身定制的密封型材。

更多咨询请联系: sales@seal-maker.com

Turbines, mills, crushers, tunnel boring machines, etc., which are used in the hydropower, mining or cement industsolutions, which can vary according to size and design. Seal Maker offers seals that are optimally adapted to the respective application. Take a look in our latest brochure series "Special Industry Solutions" and see for yourself our customized sealing profiles.

fail-safety, the required performan

More information can be obtained from the Seal Maker export managers: sales@seal-maker.com

www.seal-maker.com

well as cost reasons



# Worldwide Sealing Systems

自1997成立以来,Seal Maker一直在不断壮大,如今我们已经拥有一个遍布全球范围超过65个国家的客户网络平台。除了高品质的制造产品,Seal Maker的优势在于优质的服务,能够灵活得生产并定制密封件,加工时间较短,以及可靠的订单处理流程。

Since its foundation in 1997, Seal Maker has continuously been on a course of expansion and can now rely on a network of satisfied partners and customers in over 65 countries on all continents. Apart from the high quality of the manufactured products, Seal Maker's strengths lie in service, flexibility in the production of custom-made seals, short processing times, as well as reliable order processing.

INTERNATIONAL | Headquarters Seal Maker Produktions- und Vertriebs GmbH

> AUSTRIA | Kapfenberg Seal Maker Dichtungstechnik GmbH

> > SHANGHAI Seal Maker China CO., Ltd.

SINGAPORE Seal Maker Asia Pacific Pte. Ltd



Headquarters and Servicecenters

• Key Customers of Seal Maker

# More Information, more Service!

请留意! 我们SEAL TECHNOLOGY杂志一年出版三次,会提供您关于Seal Maker的新闻以及精彩 集锦

选择,服务以及附件 新目录提供了SML产品可升级配件和服务的详细概述,包括价格以及配图。

致电: +43 2626 200 85或发送邮件至 office@seal-maker.com, 立即免费订阅。

Stay informed!

Our client and partner magazine SEALS TECHNOLOGY is published three times a year and will keep you informed regarding Seal Maker news and highlights.

## Options, Service & Accessories

The catalog offers a detailed overview of possible upgrades, accessories and services for the SML family, including prices and pictures.

Order now free of charge via +43 2626 200 85 or office@seal-maker.com



www.seal-maker.com

Masthead

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