

# SEALS

TECHNOLOGY



0112

客户杂志 Magazine for customers and partners



Best Service.  
Top Quality.

Voilà Picard!

NEW! SML 1000e

Match Point





亲爱的读者：

今年的第一个季度一晃又过去了。值得一提的是：尽管金融业负面消息不断，但实体经济在全球范围内处于极为良好的发展态势，甚至没有受到一些国家存在的债务危机的影响。

对于 **Seal Maker** 来说，这意味着一个非常喜人的销售额和订单情况。这同时也为我们带来了新的挑战。不过，在过去的 15 年中，我们时时都在学习着灵活应对各种各样可能出现的情况。不仅在扩大生产能力方面，而且在研发真正的符合市场需要的创新型产品方面。

而正是这些符合市场需要的产品为我们的客户带来了成功！我们成功推出的 **SML 500e** 机床系列让全世界密封技术专家们长久以来的期盼变为现实：价格适宜且功能极为强大的机床系统，凭借其可以更加快速、高效和灵活地对客户需求作出反应。

我们多年来的经验告诉我们，成功原本可以变得更为简单！实际上人们需要做的只是很好地聆听。众所周知：在方方面都充分考虑到客户的需求和市场发展趋势，往往并不是一件易事。这时能够给予我们极大帮助的是破除与客户之间的沟通障碍。

**Seal Maker** 在这方面表现出极为认真的态度。国际化对于我们来说意味着公司内部可以应对不同国籍的客户。我们公司内部以母语或可流利表达的水平掌握了至少 10 种外语。

所有这一切有助于为您开发不会让您留有任何遗憾的产品，因为我们的产品能够最为完美地符合您的预期和需求。

在此，我非常自豪地宣布，已获得极大成功的 **SMLe** 产品系列又添加了新的成员！这个全新产品被称为 **SML 1000e**。作为体型小于 **SML 1800e** 大型车削机床的同类产品，它使 **SML** 机床系列得以完善！

我们专门针对现有的 **SML** 机床客户给出试销优惠价（仅限前五台机床）。在充满激情地（在第一页中）为您揭示所有新产品和特性之前，我诚挚地邀请您分享 **Seal Technology** 最新一期的详细内容。我相信，您一定会在这一期中找到自己感兴趣的内容！

您的  
Johann Glocknitzer

Dear Readers,

The first quarter of this year has once again flown by. There have been some extremely positive developments: In spite of all the prophecies of doom from the banking sector, the real international economy appears to be operating at a very high level - and all this independently of the debt problems in some states.

For Seal Maker this means an extremely pleasing sales and order situation. At the same time this presents one or two new challenges, but we have learnt how to be flexible every day for the last 15 years; both in the creation of additional production capacity and in the development of innovative, market-driven products.

And it is precisely these market-driven products that make you - our customers - so successful! The grand triumph of our SML 500e machine series realises what sealing professionals all over the world have long wished for: a cheap and extremely efficient machine system thanks to which you can react even more quickly, efficiently and flexibly to customer requirements.

An insight that we have built up over the years is that it can be relatively simple to be successful! You really only need to be a good listener. Admittedly, integrating customer requirements and market trends in all considerations is not always simple. What is an enormous help to us in doing so is that we speak the language of our customers.

At Seal Maker we take this quite literally. For us, internationalism means that we are attuned to our customers' nationality within our company. We speak at least 10 foreign languages at native-speaker level or at least with high-level fluency.

All this contributes to developing products for you that you will not regret, simply because they correspond to your expectations and requirements to an overwhelmingly convincing degree.

It is not without a certain amount of pride that I can report that our successful SMLe series has a new member! We have called the new model the SML 1000e. As the little brother of our giant SML 1800e lathe, it completes the SML machine series perfectly!

We have prepared an introductory offer that is limited to a total of 5 machines exclusively for existing SML machine customers. However, before I divulge all the innovations and features on the very first page out of sheer enthusiasm, let me welcome you to the latest edition of Seal Technology. I hope you enjoy every bit of it. I am convinced that there will once again be one or two interesting articles for you!

Yours,  
Johann Glocknitzer

## Picard Etanchéité

### Très bien!

随着春天的来临，法国密封件贸易公司 **PICARD Etanchéité** 凭借着 **Seal Maker** 公司全新推出的 **SML** 机床为自己迎来一个良好的开端。

**PICARD** 是法国密封件行业中最知名的公司之一。早在 1984 年，该公司已全面转入经营适用于各种可能的用途的标准产品和定制产品。该公司由目前公司所有人 **André Picard** 和 **Anne Marie** 的父母在法国北部一个风景秀丽的地方创建。他们的儿子 **Frederic Picard** 可以说是出生在一个密封件的世界里，因此他对该行业有着细致入微的了解。正是他倡议在原先的贸易公司的基础上增加生产系统。凭着这一大胆的举措，**PICARD** 公司现在通过自己的产品为客户保障了最优的质量、较短的交货期和具有吸引力的价格。在这一家族企业的经营理念中，始终重视为客户开发能够延长其机床使用寿命的产品。主要客户为钢铁工业、化妆品和制药工业以及食品工业领域中的公司。

现如今，**PICARD** 在自己的工厂内塑形和加工专用塑料，以及聚四氟乙烯和弹性体零部件。此外还自行生产模具。由此，一方面实现了作为制造商的独立性和对自己产品的全面控制，另一方面 **PICARD** 可以凭借已有的专业知识对特殊的客户需求迅速作出反应。“我们对自己制定的质量要求极为苛刻”，**Frederic Picard** 说。“所以我们仅与同样具备高端技能的专家共事。因此，我们从 1999 年起开始与 **Seal Maker** 合作，并获得了极大的成功。我们最早的四台 **SML** 机床，即第一款 **SML 600**，每天运行约 7 小时，现在已经无故障运行了 13 个年头！这为我们提供了最好的证明，让我们可以完全信赖 **Seal Maker** 的质量，因此，将来我们仍会从奥地利采购机床”，经验源于实践。

年初，**PICARD** 已经为公司添置了两台 **SML 500e**。“现在，我们的生产能力足足提高了 40 %。其中，**SML 500e** 作为真正的高效机床设备实现了这 40 % 的增产”，**Picard** 强调了 **SML 500e** 的优势。“借助 **SML 500e**，我们可以缩短对客户的交货期，同时保障了所生产零部件最优的质量”。经过这些年的发展，从前的小型家族企业已经成长为世人关注的公司。实际上，**PICARD Etanchéité** 与另外两家公司已合并为一个集团。

**PICARD Etanchéité** 设计由橡胶、塑料和聚四氟乙烯复合材料制成的零部件。

**DECOUPE EXPRESS** 针对不同行业领域的用户生产标准密封件和模具。

**PICARD Technology** 设计装填设备的专用零部件。

“现在，我仍热衷于周游世界，拜访我的客户”，**Frederic Picard** 说。“即使从事这个行业已有许多年，但我对它的热情却没有一丝削减。同时，也要感谢我身边这支卓越的团队。能够与所有这些团队成员在一起工作，让我感到无比自豪。也许这也是 **PICARD** 成功背后的一个秘密：我们不仅始终保持对精密和质量的执着追求，而且将之与我们的客户、合作伙伴和朋友共同分享。C'est la vie（这就是生活）！”

Spring has begun well for the French sealing dealer **PICARD Etanchéité** - with two brand new branded **SML** machines by **Seal Maker**.

**PICARD** is one of the best-known sealing companies in France. Since as early as 1984, everything to do with the business has been here with corresponding standard and special production for every conceivable use. The company was founded in the beautiful countryside of Northern France by the parents of the current owner - **André** and **Anne Marie Picard**. Their son, **Frederic Picard**, was born into the world of sealing, so to speak, and therefore knows his profession inside out. It was his initiative to add production facilities to the former trading company. Thanks to this brave step, **PICARD** now guarantees its customers top quality, minimal delivery times and attractive prices with their own products. Part of the company philosophy is to develop products for customers that can increase the service life of their machines. The main customers are companies in the steel industry, the cosmetics and pharmaceuticals industry and the food industry.

Today **PICARD** designs and machines special plastics, PTFE and elastomer parts at its own factory. In addition, it also produces its own tools. On the one hand this allows independence from manufacturers and full control of its own products; on the other, **PICARD** can quickly react to particular customer requirements with its existing specialist knowledge. "Our quality requirements of ourselves are extremely high", says **Frederic Picard**. "This is why we work exclusively with specialists who offer similar quality in the top segment. It is for this reason that we have been working with **Seal Maker** very successfully since 1999. The oldest of our four **SML** machines, our first **SML 600**, runs for approximately seven hours a day - and has been doing so perfectly for 13 years!" **Picard's** practical experience has led to the following conclusion: "For us, this is the best proof that we can trust **Seal Maker's** quality - and we will therefore continue to procure our machines from Austria."

At the beginning of the year **PICARD** added two **SML 500e** machines to its plant. "We are currently experiencing a solid 40% increase in our production. The **SML 500e** is proving to be a real workhorse; its as if it were made to fulfil this additional production", says **Picard** of the **SML 500e's** strengths. "It allows us to maintain fast delivery times for our customers - and, in doing so, also guarantee top quality for the parts produced." The once small family business has developed into an impressive company over the years. In fact, as well as **PICARD Etanchéité** there are two other companies that are part of the group.

**PICARD Etanchéité** designs special parts from rubber, plastic and PTFE compounds. **DECOUPE EXPRESS** produces standard seals and moulds for users from a wide range of sectors.

**PICARD Technology** designs special parts for filling machines.

"Even today I still enjoy spending my life travelling around the world to visit my customers", says **Frederic Picard**. "Even after so many years in the sector I am still utterly involved in the business. I owe this not least to my fantastic team. I am very proud to be able to work with all these people. Perhaps that is also the secret of **PICARD's** success: we do not keep our passion for precision and quality to ourselves - but share it with our customers, partners and friends. C'est la vie!"

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CONTACT

# NEW! SML 1000e

## The Power Pack

SML 1000e基于车削巨头SML 1800e成熟的概念，并以其450至1100毫米的车削范围成为了SML 500e和SML 1800e这两款成功模式之间的高效中心点。

The SML 1000e is based on the concept of our proved lathe giant, the SML 1800e. With its turning diameter ranging from 450 mm to 1100 mm (18 to 43 Inch), it is the perfect mid-size addition to our SML 500e and SML 1800e models.

## HIGHLIGHTS

- 高性能CNC数控机床全套系统用以加工直径范围为450毫米（18英寸）至1100毫米（43英寸）的密封件
- 内置PC机模块的SML系统软件操作简单
- 完整的工具套件
- 屑片抽吸和切割装置
- 广泛的配件
- 详细的维护、安装及操作文档。
- 选项：匹配驱动刀具
- powerful CNC machine system for seal with diameter from 450 mm (18") up to 1.100 mm (43")
- user-friendly SML System software on an integrated PC-module
- full set of tools
- chip cutter and suction unit
- extensive set of accessories
- detailed documentation for maintenance, installation and operation
- optional: with live tooling

LED-照明  
LED lighting



自动夹紧系统  
automatic clamping system



高效率的12工位刀塔  
efficient 12 position tool turret



旋转臂 符合人类工程学  
excellent ergonomics through  
inclusion of a swivel arm



## 技术参数

FANUC 0iT\*\*操作系统  
总功率: 25 kVA  
供电电压: 3x400V +6%, -10%, 50Hz  
操作系统电压: 24V

### 生产能力

最大车削直径: 1.100 mm (43 Zoll)  
最小车削直径: 450 mm (18 Zoll)  
半成品最大高度: 200 mm  
半成品最大重量: 180 kg  
卡头直径: 1.300 mm

### 主轴箱

主轴发动机功率: 5.5 kW  
主轴转速范围: 30 - 300 U/min  
最大主轴马达扭矩: 1.300 Nm

### 滑动托架

X轴行程: 500 mm  
Z轴行程: 235 mm  
X轴快速档: 30 m/min  
Z轴快速档: 15 m/min

### 刀盘

12工位  
(选项: 匹配驱动刀具)  
刀把: 25 x 25 mm

### 其他

总尺寸: L x B x H 2.200 x 2.200 x 2.210 mm  
设备重量: 4.500 kg  
冷却液缸容量: 80 l

该系列机床是专门针对加工塑性材质而设计的。为安全起见，禁止用以金属工件加工。以上数据以2012年2月的技术参数为基准。当前的数控装置基于 FANUC技术标准。



\*For information about our Full-System-Package FSP, please contact us » [office@seal-maker.com](mailto:office@seal-maker.com)

## Technical data

Control system: FANUC 0iT\*\*  
Total power installed: 25 kVA  
Power supply voltage: 3x400V +6%, -10%, 50Hz  
Control system voltage: 24V

### Capacity

Maximal turning diameter: 1.100 mm (43 Inch)  
Minimal turning diameter: 450 mm (18 Inch)  
Maximum billet length: 200 mm  
Maximum billet weight: 180 kg  
Diameter of face chuck: 1.300 mm

### Headstock

Main spindle motor power: 5.5 kW  
Spindle speed range: 30 - 300 rpm  
Maximal spindle torque: 1.300 Nm

### Carriage

X axis travel: 500 mm  
Z axis travel: 235 mm  
X axis fast traverse: 30 m/min  
Z axis fast traverse: 15 m/min

### Tool turret

No. of stations: 12  
(optional: with live tooling)  
Dimensions tool shank: 25 x 25 mm

### Miscellaneous

Overall dimensions:  
L x W x H 2.200 x 2.200 x 2.210 mm  
Machine weight: 4.500 kg  
Coolant tank capacity: 80 l

The SML 1000e has been designed for machining of plastic materials ONLY. For safety reasons, machining of metals is prohibited. The data stated here are based on the technical specifications of 02/2012. \*\* Numeric control in its current version as available through FANUC.

# Best of Seals - Vol. 4

# Best Service. Top Quality.

## 压力

在选择最优的密封材料时，压力是一个相对次要的因素。但从原则上来说，在压力较大时，必须选择具有相应硬度的材料，以防止出现挤出间隙。在大多数情况下，工作压力对聚合物类型的选择并没有多大的影响，而工作压力会要求对型面几何结构进行调整。在特殊的应用场合中，仍建议考虑出现的压力，以及与其相关的作用影响。因此，例如在近海应用中人们所熟知的“快速释压”（Rapid Gas Decompression RGD）。在特别高的压力下，气体分子扩散到密封件中，并在聚合物基中分离。在突然出现压力降时，这些气体分子会形成气孔，使材料膨胀至应变极限，导致出现裂缝。存在适用于该应用的特殊橡胶材料。Seal Maker 即将提供相应的 RGD 材料。

## Pressure

Pressure plays a rather subordinate role in the selection of optimum sealing materials. However, given high pressure, materials with corresponding toughness must be selected in order to prevent gap extrusion. In most cases, working pressure affects the selection of polymer type much less than it demands adaptation of the profile geometry. However, in the case of special applications it is advisable to take into account the pressure that occurs and the associated effects. In offshore applications, for example, the phenomenon of "explosive decompression" (Rapid Gas Decompression - RGD) is well known. Under particularly high pressure, gas molecules diffuse in the seal and dissolve into the polymer matrix. In the event of sudden drops in pressure these gas molecules form gas bubbles, which stress the material to its elastic limit and cause tears. There are special rubber compounds suitable for this type of application. The corresponding RGD-materials will soon be available from Seal Maker.



最新的客户调查结果显示，我们本年度的口号“Keep on top of the game!”受到推崇。总分 1.48\*：接受调查的客户中超过 80% 认为 Seal Maker 属于密封件行业中的顶级完整系统供应商。客户满意的服务、提供权威的咨询、快捷的报价、完美的订单加工、较短的交货期，使 Seal Maker 受到人们的青睐。受到极高赞誉的还有奥地利的产品质量和突出的性价比。

凭借着大量的反馈，我们现在可以更深入地了解客户的期望和需要。在此，我们对您的支持表示感谢，并为可以与您继续保持良好的合作而感到欣慰！

\*1 = 优秀 | 4 = 不满意

The results of our latest customer survey shows that we live up to our motto for this year: „Keep on top of the game!”. With an overall rating of 1.48\*, more than 80% of the respondents see Seal Maker at the top of the system suppliers in the sealing sector. Friendly service, competent advice, quick submission of offers, perfect order handling and short delivery times proved to be the key aspects. The Austrian product quality as well as the excellent price-performance ratio also received very good grades.

Thanks to the ample feedback, we can now meet our customers needs and expectations even better. At this point, we would also like to thank you for your support and look forward to continuing this excellent cooperation!

\*1 = very good | 4 = insufficient



### More information:

如对选择正确的密封材料存在疑问，请咨询我们的应用技术人员。

» [a.haspel@seal-maker.com](mailto:a.haspel@seal-maker.com)

Our application engineers will gladly help you with questions concerning the right choice of sealing material.

» [a.haspel@seal-maker.com](mailto:a.haspel@seal-maker.com)

## 运动类型

在静态应用中仅考虑运行温度和接触流体，而在动态应用中，密封件被施加额外的机械应力。运动类型可以为直线、回转或振动。为了使密封件达到相应的使用寿命，应选择适合于相应应用的摩擦系数较小的材料。为此，Seal Maker 提供例如 PU U203-MoS2，以及不同类型的聚四氟乙烯材料。当然也可通过选择合适的具有相应良好润滑性能的流体，或通过密封件几何结构的设计（预应力、边缘宽度、密封角度）实现摩擦性能的优化。此外要求材料具有尽可能高的耐磨性。因此，例如由于聚氨酯具备非常好的耐磨性，当其符合所有其它条件时，是最理想的材料之选。此外须注意，脏污和结壳会导致对密封件造成额外的机械性破坏。

## Type of movement

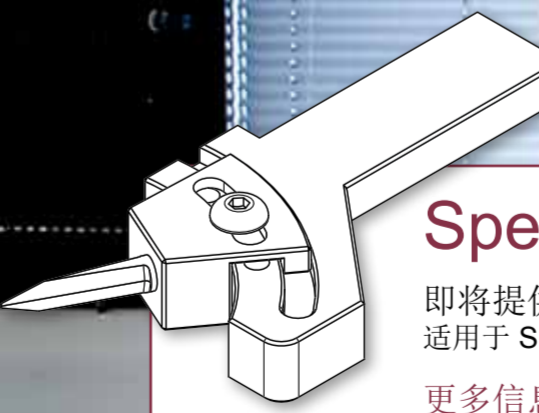
While only operating temperatures and contact fluids need to be taken into account during static applications, seals in dynamic applications are also exposed to mechanical stress. The types of movement can be linear, rotating or oscillating. In order to achieve a corresponding service life for the seals, suitable materials with a low friction coefficient should be selected for each application. Here Seal Maker offers, for example, PU U203-MoS2 and other types of PTFE. Improving friction behaviour can, of course, also be achieved by selecting a suitable fluid with correspondingly good lubricating properties, or by the design of the seal geometry (pre-stressing, lip strength and sealing angle). Furthermore, it is necessary to have the lowest possible corrosion behaviour for the material. Polyurethane, for example, demonstrates particularly good corrosion behaviour and is therefore the optimum material if the remaining conditions so allow. It should also be noted that contamination and encrusted dirt can lead to further mechanical failure of the seal.

## 使用时间

除了运行温度和所使用的接触流体外，还须注意规定的使用时间。只有在考虑到这三个因素的情况下才能选出最优的密封材料。通常，在标准化实验室条件下，且仅在相对较短的时间内，针对于特定温度或接触流体检验稳定性。这可能与连续使用时的实际情况有所差异。因此，温度升高、温度过低、压力波动和动态应用可导致加速分解反应。除了比较材料相关特性参数和考虑稳定性表格外，在设计密封件时还需具备必要的经验。

## Action time

As well as the operating temperature and the contact fluid used, it is also important to take into account the intended action time. The optimum sealing material can only be selected taking into account these three factors. Stability is normally investigated at certain temperatures or using certain contact fluids under standardised laboratory conditions and only for relatively short periods of time. In some cases this does not correspond to the actual reality of long-term use. Thus increases in temperature, low temperatures, fluctuations in pressure and dynamic applications can lead to accelerated degradation. As well as comparing material-specific properties and consultation of resistance tables, a certain amount of experience in designing seals is also necessary.



## Special Tools

即将提供：  
适用于 SML 车削机床的最重要的专用工具套装！

更多信息！

在 [www.seal-maker.com](http://www.seal-maker.com) 网站登录后可  
下载“专用工具”PDF 文档

Available soon:  
The most important special tools for your SML-lathe in a set!

More information!

The PDF document „Special Tools“ is available as a download in the log-in section at [www.seal-maker.com](http://www.seal-maker.com).

HOT



## 职业网球选手Michael Linzer 由 Seal Maker 提供赞助

移动、耐力，在正确的时间作出闪电般的反应：网球是一个极具魅力的体育项目。Seal Maker 也对网球情有独钟，并为自己可以作为奥地利职业网球选手 Michael Linzer 新的总赞助商陪同其巡回参加世界大赛而感到欣慰。

从赛点到抢七决胜局直到最后获胜，Michael Linzer 目前正纵横驰骋在网球赛场上与对手进行角逐，从巴西到埃及，再到智利和墨西哥。

因此，我们建议所有的网球爱好者：请您与 Seal Maker（总赞助商）共同见证 Michael Linzer 赢得下一个赛事奖杯！

如需了解有关网球明星 Michael Linzer 及其所参加比赛和赛事荣誉的信息，请登录 [www.linzer.co.at](http://www.linzer.co.at)



## Michael Linzer, Professional Tennis Player sponsored by Seal Maker

Action, endurance and lightning-quick reactions at the right moment: tennis is a fascinating sport. Seal Maker always stays on the ball, too - and is therefore pleased to accompany Austrian tennis professional Michael Linzer around the world as his main sponsor.

From the opening serve to tie-break, set and match, Michael Linzer currently hounds his opponents all over the court, from Brazil and Egypt to Chile and Mexico.

Our tip for all tennis fans: be there live when Michael Linzer brings home his next well-deserved cup with the support of Seal Maker!

You can find out more about tennis star Michael Linzer and his tournament successes at [www.linzer.co.at](http://www.linzer.co.at)

## We'll be there!



俄罗斯MDA，莫斯科  
时间： 25.09. - 28.09.2012  
地点： Crocus Expo, 莫斯科  
信息： [www.mda-russia.com](http://www.mda-russia.com)  
门票预定和详细信息  
» [marketing@seal-maker.com](mailto:marketing@seal-maker.com)

### MDA Russia in Moscow

When: 25.09. - 28.09.2012  
Where: Crocus Expo, Moskau  
Info: [www.mda-russia.com](http://www.mda-russia.com)  
Ticket reservation & more info  
» [marketing@seal-maker.com](mailto:marketing@seal-maker.com)



PTC 亚洲国际动力传动博览会（上海）  
时间： 29.10. - 01.11.2012  
地点： 上海新国际博览中心(SNIEC)  
信息： [www.ptc-asia.com](http://www.ptc-asia.com)  
门票预定和详细信息  
» [marketing@seal-maker.com](mailto:marketing@seal-maker.com)

### PTC Asia in Shanghai

When: 29.10. - 01.11.2012  
Where: Shanghai New International Expo Centre (SNIEC)  
Info: [www.ptc-asia.com](http://www.ptc-asia.com)  
Ticket reservation & more info  
» [marketing@seal-maker.com](mailto:marketing@seal-maker.com)

HOT