



我们志愿成为您工业
创新之路上的好伙伴



MONNIER + ZAHNER AG



LAMBERT - WAHLI AG

公司概况

1964年，Eugen Monnier和Robert Zahner在Safnern-Moos工业区创立了瑞士莫尼埃查纳有限公司（简称MZ），专门生产销售表壳制造机床。

20世纪70年代机械表的行业危机到来，公司开始转向骨科和牙科工具加工机床的设计和生 产，最终在医疗植入物生产设备领域达到了世界领先水平。享誉业界的产品有：加工接骨钉、接骨板的内外旋风铣床以及加工人工髋关节球头、杯衬的球面磨床。

公司在其他领域也积极开拓，例如牙科车针（牙钻）自动磨床、汽车和减速机行业的蜗杆与齿轮切削机床。公司还可以为客户的特殊需求定制专用设备。

2006年MZ公司与瑞士兰博特瓦里有限公司（简称LW）合并。如今，员工的数量已经达70余人，包括学徒。公司非常重视学徒的培训工作，共约10至12名设计、机械、电子技术学徒在公司各个岗位接受培训。

创新、灵活与人性化的管理激发着整个团队不断创造新的成就。公司管理层坚信：提供高质量的产品和售后服务、保持质量而不是数量上的增长、经常与员工和客户保持沟通是获得成功的重要因素。



技术实力

我们在汽车工业、钟表工业、骨科、牙科领域提供世界一流的好机床，这源于对设计、制造和安装各个环节管理的精益求精。我们不但可以改造和优化通用设备来满足客户的一般需求，更可以设计专用机床来满足客户的特殊需要，这意味着我们可以为客户的独特需求提供量身定制的解决方案。我们还为客户提供世界范围的售后服务支持。

擅长的工艺



滚压 挤光



珩磨 抛光



磨削



铣削滚齿



刮削



内旋切

特殊行业

- 超硬材料切割（人造蓝宝石）
- 激光打标

我们提供

- 单件、部件的加工和工艺支持
- 快速、灵活、可靠的技术咨询
- 性能价格匹配的创新解决方案

Automotive 汽车工业领域专用设备



MZ120
Gear hobbing and worm milling machine

■ Max module 1.0
齿轮蜗杆复合机
最大模数1.0



MZ130
Gear hobbing and worm milling machine

■ Max module 1.5
齿轮蜗杆复合机
最大模数1.5



M644 Enc
Duplex worm milling machine

■ Max module 2.5
双工位蜗杆外旋风铣床
最大模数2.5



L248
Duplex worm milling machine

■ Max module 3.5
双工位蜗杆外旋风铣床
最大模数3.5



M651
Worm milling machine

■ Max module 3.5
蜗杆铣床
最大模数3.5



M663
Thread and worm grinding machine

■ Max module 4.0
蜗杆磨床
最大模数4.0



W1000micro
Fine pitch gear hobbing machine

■ Max module 1.0
高速小模数滚齿机
最大模数1.0



M312
Profile rolling machine

■ Max module 1.75
■ Max rolling pressure 120 kN
滚压机 最大模数1.75
挤压力最高12吨



2000 D-drive
Gear hobbing machine 高速三直驱数控滚齿机

- 最大模数4.0
- 数字同步尾架转速7'000转 刀具转速最高10'000转
- 两轴数控去毛刺刀架
- 贯穿式上下料，适用于生产线

M667
Worm milling machine 蜗杆外旋风铣床

- 最大模数1.75
- 高刚性设计 3轴或者4轴数控
- 各种上料装置可选
- 可配备高速电主轴，最高转速15'000转
- 医疗行业适用



M305
Profile rolling machine 滚光机

- 卧式轮廓滚光
- 工件滑座与滚轮进给为力矩电机直驱
- 挤压力数字化无极可调，最高5吨
- 横挤、纵挤皆可实现



Watch industry 钟表工业领域专用设备



W90 CNC 滚齿机
(Hand loading) fine pitch gear hobbing machine

- Module 0.05 - 1 mm
- 手动上下料版本
模数范围0.05-1mm



W90 CNC 滚齿机
(Packeting loader) fine pitch gear hobbing machine

- For loading unit W37 / W38
- 自动叠组上料器版本



W900micro 滚齿机
Fine pitch gear hobbing machine

- Manually adjustable swivel angle
- 手动螺旋角版本



W91 滚齿机
Fine pitch gear hobbing machine

- Module 0.05 - 1.5 mm
- 模数范围0.05-1.5mm



W92 滚齿机
Fine pitch gear hobbing machine

- For gear production of small workpieces
- 表厂专用超小零件加工



L109 端面滚齿机
Crown wheel hobbing machine

- Diameter 1 - 6 mm
- 用于直径1-6毫米的冠状齿轮加工



500 D-drive 滚齿机 端面滚 Fine pitch gear hobbing / crown wheel hobbing machine

- Synchronized motor spindles, headstock and tailstock max 6'000 min⁻¹, tool spindle max 12'000 min⁻¹
- Longitudinal, shift and plunge axes with highly dynamic linear drives
- Wahli W20, W25 and W31 loaders can be integrated

头架尾架同步数控轴转速6000转 刀轴12000转

径向、轴向、窜刀轴采用直线电机

经典w20 w25 w31上料器可选

W1000micro 滚齿机 Fine pitch gear hobbing machine

- Hobbing machine with the highest precision and performance, suitable for a wide range of gears for the watch industry, equipment manufacturing and precision engineering
- Three electronically synchronized motor spindles allow speeds of up to 15'000 min⁻¹
- Auxiliary units integrated into the machine

顶级精度和性能，适用于钟表、微机械领域多种齿轮加工

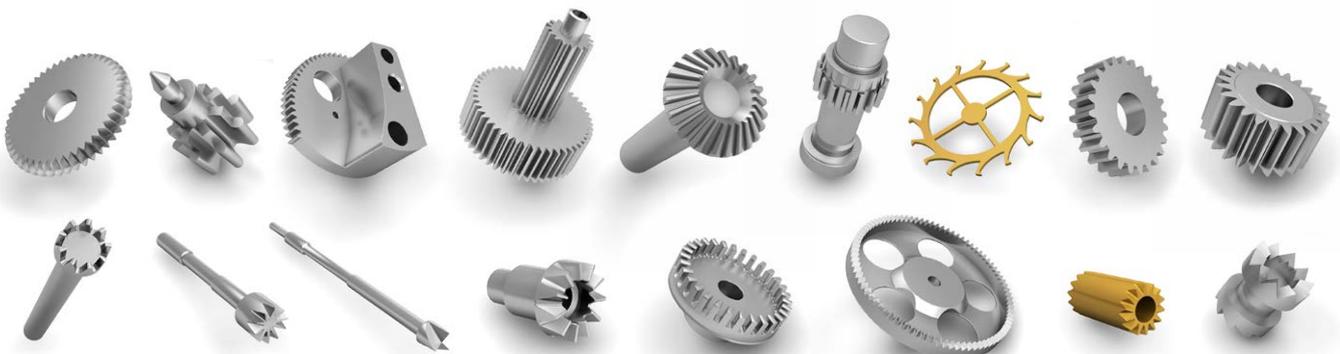
三台高速同步主轴最高转速15'000转

各种附件收纳与床身内，无多余占地面积需求



W90 CNC 滚齿机 Fine pitch gear hobbing machine

- 经典机的数控升级版，三轴或者5轴数控，加工直齿轮
- 具有双刀法去毛刺功能
- 可弹簧顶紧、亦可液压顶紧
- 人性化菜单，触屏界面





M621
Thread whirling machine
■ Workpiece diameter 2.5 - 13mm
内旋风铣床
工件直径范围2.5-13mm



M628
Special machine for milling self-cutting flutes on medical screws
■ Machining with milling cutters or end mills
螺钉自攻槽铣床



M648
Rotary transfer drill grinding machine
■ Complete machining with up to 18 CNC axes
组合机床 用于加工长钻
18轴数控



M669
Head and tip whirling machine for medical screws
■ Machining of pressed blanks made of titanium or medical steel
内旋风铣床
用于加工螺钉头尾



M658
2-station polishing machine for heads and inserts
■ Station 1: Polishing of head and inserts
Station 2: Polishing of radius, chamfer, face
双工位球头磨床
工位1 球面抛磨
工位2 圆弧倒角端面抛磨



M660 内锥面磨床
M650
Internal grinding machine for grinding the cone in ceramic heads and inserts
■ With one or two grinding units
单头或者双头加工



M668 球面磨床
Honing machine for heads and inserts

- Suitable for processing steel, titanium and ceramics
- Customized workpiece and tool holders
- Tool changer and tool magazine for 10 honing / grinding tools
- Workpiece magazine with workpiece loader (optional)
- Transverse CNC axis on tool slide for processing front side, run-in radius and spine products

金属、钛、陶瓷皆可加工，量身定做的各种工装

多达10工位刀库，自动上下料

横置数控轴用于加工端面倒角圆弧或者脊髓部件

M654 陶瓷球面抛光机
Polishing machine for heads and inserts

- Temperature monitoring (infrared)
- Polishing tool with integrated suspension infeed
- For polishing products made of ceramics

温控功能 抛光工装自供液

陶瓷球面器件加工专用



M641 金属球面抛磨机
Honing machine for heads and inserts

- Minimum conversion time through simple dialogue programming
- Turret head for 5 honing / grinding tools
- Measuring unit for internal and external measurement
- Polishing unit for steel
- Workpiece magazine with workpiece loader (optional)

简介的菜单界面，节约对话时间

5位刀库，在线尺寸测量，专抛金属球

可配备上下料仓





Dentsoft calculation software from MTS

编程软件采用MTS系统

With the calculation software by MTS, our grinding machines can also be used for applications outside the dental industry. Among the features offered by the software are modules for milling cutters, rotary cutters, drills, reamers, punches and pre-processing, opening up a wide range of possible applications for the machines. Our own calculation software Dentsoft can still be used for the calculation of rotary burs.

在MTS软件的丰富功能支持下，磨床的功能不仅仅局限在牙科工具的磨削。铣刀、回转刀具、钻头、铰刀、冲孔头、预处理等皆可以实现。我们自行研发的软件仍然可以在新型数控系统下运行，加工各种旋转锉。





M647 车针磨床
Grinding machine for dental burs

- 6-axes-path control
- Automatic loading and unloading system with funnel magazine for 1'000 workpieces (bar sizes) and/or drum magazine for overend workpieces
- Universal grinding machine for grinding miniature tools
- Grinding wheel attachment for three wheels

6轴数控

可配备漏斗式料仓（1000只针状毛坯）

或者鼓式料仓（大头毛坯）

可加工各种小型刀具，砂轮轴一次可装3片砂轮

M642 evolution 旋转锉磨床
Grinding machine for rotary cutters

- 6-axes-path control
- Automatic loading and unloading system with drum magazine
- Grinding wheel attachment for three wheels
- Software for all shapes (radii and straight lines)

6轴数控

鼓式上下料系统

砂轮轴可装3片砂轮

软件功能丰富（各种弧形线性轮廓）



M665 预磨机
Pregrinding machine

- Automatic loading system with funnel or drum magazine
- The programmable CNC tailstock (part support) compensates for diameter difference through synchronous infeed with the grinding wheel, ensuring the highest level of stability
- High efficiency for simple shapes with up to five programmable plunging operations per workpiece
- Workpiece programming using powerful MTS toolkits. Direct implementation of a wide range of shape and processing variants

漏斗式或者鼓式上料器

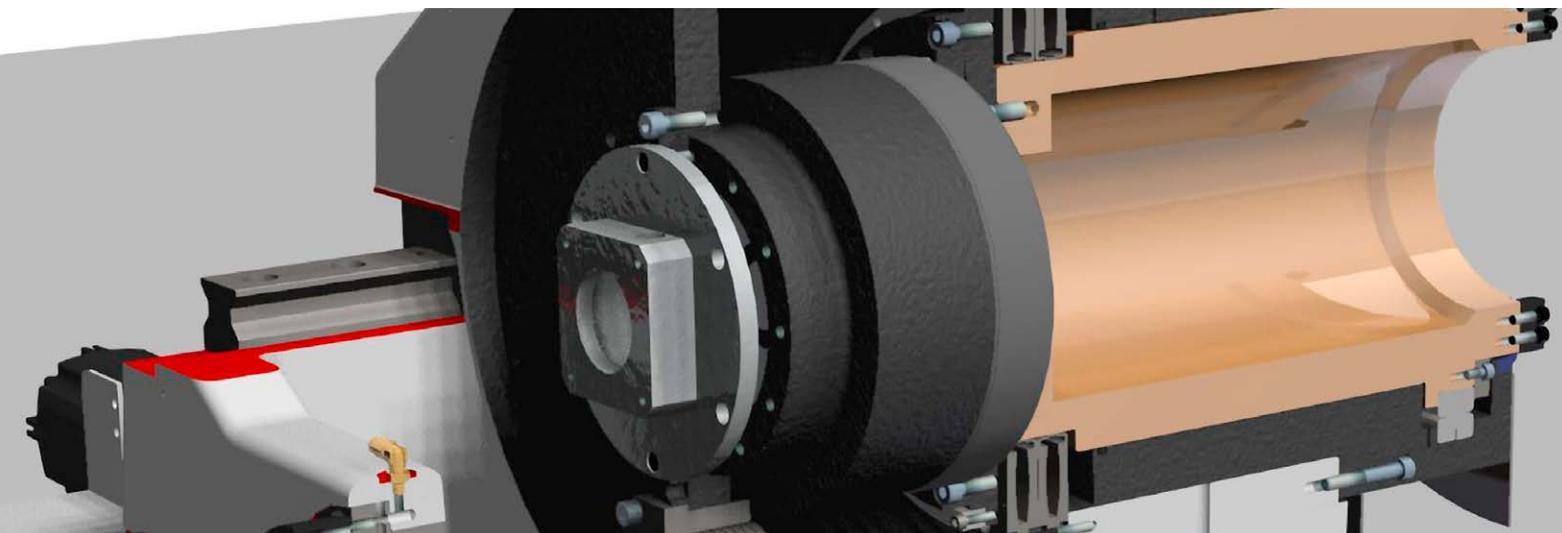
数控尾架自动补偿工件直径，确保稳定支撑

高效的5种进给方式，可编程

MTS软件使各种形状皆可直接插补控制



Special purpose machines 定制专机

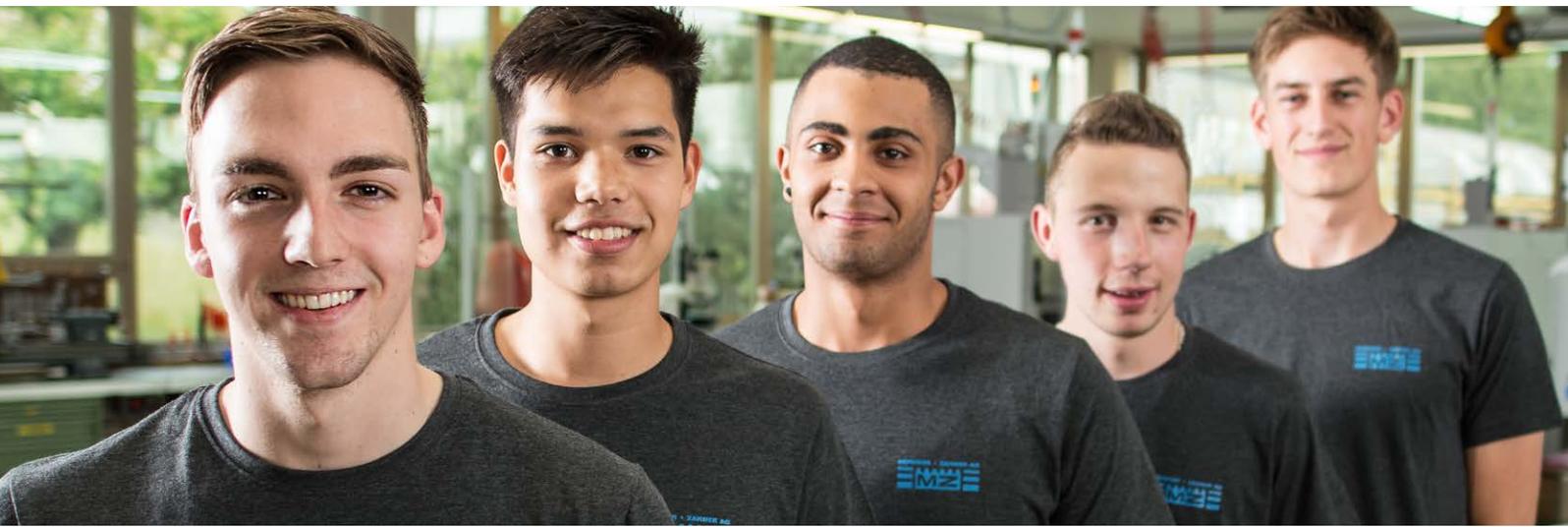


Designed to the customer... 为您定制

With our competent and experienced employees, we offer our customers ongoing development and individual support for solutions tailored exactly to their requirements. 我们凭借丰富的经验，为客户持续研发，并提供个性化的支持。

- We adapt and optimize standard machines to meet the requirements and specifications of our customers 客户的需求既可以通过改造通用设备实现，也可以设计专机。
- For special applications, we're also happy to develop special purpose machines 多年的经验和诀窍帮助我们实现这些专机的设计。
- Many years of experience and comprehensive know-how support us in the construction of special purpose machines





Apprenticeship training is important to us...

学徒的培养对我们来说很重要。。。

To ensure that we can develop and manufacture our products to a high level of quality, we need well-trained and skilled specialists. The training of our apprentices is therefore very important to us. At our company, ten to twelve apprentices complete their vocational training as automation engineers, design engineers or multi-skilled mechanics, in each case earning a Swiss Federal VET Diploma. 为了确保能够研发和制造高质量的产品，我们需要有经验的技师。故而学徒的培养很重要。我公司有10至12名学徒正在经历他们的职业培训，例如自动化工程师、设计工程师、多能技师，最终获得瑞士联邦VET证书。

«With its multi-faceted training, the profession of multi-skilled mechanic offers a perfect foundation. The apprentices are given the opportunity to get to know the many aspects of our profession in various departments. The challenge of introducing young people into the world of work and being able to see how they develop makes my job exciting. As a vocational trainer, I work hard to get the best from every apprentice.»

Benjamin Fuhrer / Vocational trainer and multi-skilled mechanic

“经过多种培训，学徒可以打下极好的机械加工基础，他们可以有机会了解我们各个部门的专业分工。我的工作中令我激动的事情在于，让年轻人能够进入工作状态而且获得提升，是个不小的挑战。” 本杰明弗若 / 职业培训师 多能技工

“我们感到这里的氛围很好，乐趣多多（因为公司有几个段子高手），因而愿意积极工作。各种活（车铣钻。。。）每天都给我新的挑战。”
阿隆 / 多能技工 学徒第一年

“The good atmosphere we have here and the many funny moments give me the motivation to work every day. The varied jobs (turning, milling, drilling etc.) throw up new challenges for me every day.”

Aaron / Apprentice multi-skilled mechanic, 1st year

为何决定当一名设计工程师？

“首先且主要的原因是，我对技术类的东东感兴趣，比如机车。我更希望能把自己的设想最大限度地实现。学徒阶段结束后，良好基础已经打下，一扇面向更高级层次培训的大门将为你打开。”

马克罗 / 设计工程师
学徒第二年

Why did you decide on an apprenticeship as a design engineer?

“First and foremost because I'm interested in technical stuff, like motors and cars. And I also like being able to develop my own ideas and ultimately put them into practice. By the end of the apprenticeship, you have a good basic education and the doors are open to a wide range of advanced training options.”

Marco / Apprentice design engineer, 2nd year

What skills do you acquire as a trainee design engineer apart from the technical expertise?

“During the apprenticeship, independent work and personal responsibility are encouraged. You grow with your responsibilities as the level of difficulty and your own ability to solve problems increases.”

Manuel / Apprentice design engineer, 4th year

除了技术之外，你从设计工程师学徒培训中还获得了哪些技能？

“学习过程中，我们被鼓励独立工作与自我负责。你的成长将伴随着责任和困难，当然你解决问题的能力将一并得到提高。”

曼纽尔 / 设计工程师 学徒第四年



Quality comes first...

质量至上。。。

MZ maintains a management system that meets our own specific requirements, and reviews and improves its efficiency continuously. With our management system, we are certified in quality management (ISO 9001:2008).

We observe the following principles of quality assurance, which must be in line with the requirements of the underlying standards:

- The requirements of customers and other stakeholders must be known if you want to be able to meet - or even better exceed them. Here, legal compliance must be accorded a high priority.
- The management system creates an environment in which it is possible to meet these requirements. Employees are informed about the contents of the management system as appropriate to their specific roles.
- The planned outcome shall be achieved by controlling the required resource and activities in a defined and reproducible process.
- The processes shall be monitored by means of sensible reviews.
- All of MZ's actions shall be based on up-to-date knowledge and high data quality.

MZ公司拥有一套管理系统以满足自己独特的指标、内审并得以持续提高效率。籍此顺利通过ISO9001:2008。

我们关注以下这些质量措施，以确保和潜在的标准相适应：

客户的需求必需被明确，无论我们是希望达成亦或超越之。这必需在法律允许的范围内（某些高精设备受出口受限）。

管理系统创建了这个环境以保证这个要求得以达到。员工们被告知这个管理系统的内容及其相关的角色。

我们通过调度所需的资源并执行预定的可复制的流程达成计划好的目标。

全流程需要进行评审监督。

MZ将与时俱进，采用最新科技与最新质量标准。



For the sake of the environment... 为了我们赖以生存的大自然。。。

With our management system, we are certified in environmental management (ISO 14001:2004).

The sustainable use of resources is extremely important to us. We manufacture our products in a way that ensures the minimum possible impact on the environment. This means choosing environmentally balanced materials and methods for processes and products.

Operations

- Reduction of energy requirements in operation
- Certified suppliers for waste disposal
- Optimisation of commuter, business trip and transport traffic

Products

- Reduction of energy requirements for our products
- Avoidance or reduction of hazardous substances in our machines
- High standards of service
- Long service life

We also overhaul, refit and modify older machines to bring them up to the standards of the best available technology, allowing us to save additional resources.

本公司已通过环境体系认证(ISO 14001:2004)

可持续利用资源对我们非常重要，我们确保在生产过程中对环境造成的影响达到最低，包括使用环保的材料和处理方法。

产品制造环节

生产过程要节能；

废物处理要专业；

交通出行要优化；

产品设计环节

功率消耗要最低；

低污无污是首选；

操作维护要方便；

寿命长久是追求；

我们也承接旧设备的维修升级工作，达到新设备的精度，从而节约了资源。



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