

STP MAGIS



sironi
precision by design

MAGIS
elegantly simple



MAGIS - 轻松提高您的生产精度与效率

MAGIS - there is no better & easier way to improve your process

在刀具测量与预调领域，STP MAGIS绝对物超所值。

刀具预调与测量所需要的全部功能和数据都呈现在同一屏幕内，用户界面友好，操作方便快捷。

The new *STP MAGIS* generation of tool presetting and measuring system has revolutionized the value of *entry level* tool measurement.

The innovative *MAGIS* control delivers all of the needed measuring features and functions in a user friendly, clean and trouble-free single screen user interface.

50年创新与质量保证
50 years of innovation and quality



SPERONI 自从1963年创立以来，便致力于从设计上提供最根本的的解决方案，为用户创造最大的价值。

完善的质量控制体系：
 SPERONI 作为全制造型企业，对所交付的产品拥有全面的质量控制能力，在车削、镗铣、磨削及复合加工上一直采用先进的技术及设备。

强大的软件研发与设计能力：
 软件上的研发与设计100%来自于 SPERONI 意大利总部。50多年来，我们一直坚持向客户提供第一手的信息与技术。

公司的信念与战略：
 自始至终的质量保证与透明化的沟通。SPERONI 在1997年通过了 ISO9001 质量认证体系。

所有的刀具预调与测量设备（含软件系统）均由 SPERONI 全面自主设计制造。

Since 1963 SPERONI has dedicated its design efforts to provide fundamentally sound solutions in order to generate the most value for its end users.

We have full control of the quality we deliver due also to the fact that SPERONI is a full manufacturing company employing the latest technologies in turning, milling, grinding and complex machining.

100% of our software development and design is carried out at our headquarters in Italy providing 50 years of first-hand knowledge to all our customers.

Quality and transparent communication has been a true belief and a strategy since our beginning. Since 1997 SPERONI has been ISO 9001 certified, further guaranteeing the quality of our products and services.

All tool presetting and measurement systems SPERONI are fully designed and manufactured, software included, by SPERONI spa.



STP MAGIS 400
 Z Axis 400 mm / 15.75"
 X Axis 400 mm / 15.75"
 Max ø 350 mm / 13.78"
 * Max ø 420 mm / 16.54"



STP MAGIS 500
 Z Axis 500 mm / 19.69"
 X Axis 400 mm / 15.75"
 Max ø 350 mm / 13.78"
 * Max ø 420 mm / 16.54"

结构 structure 为了保证设备结构最好的热稳定性，MAGIS的机身采用优质珠光体铸铁材料。

SPERONI所有的刀具预调及测量设备均采用优质珠光体铸铁材料。。

不同于大多数对刀仪的设计，MAGIS采用均质结构加上优质珠光体铸铁材料，避免了轻质合金或花岗岩结构在环境温度变化时不稳定的问题。

对于热稳定性，均质是非常关键的因素。SPERONI五十多年的经验已经证实这一点，金属加工领域对此有更长久的验证。我们选择最合适的材料和结构，这是我们执行的基本设计准则。

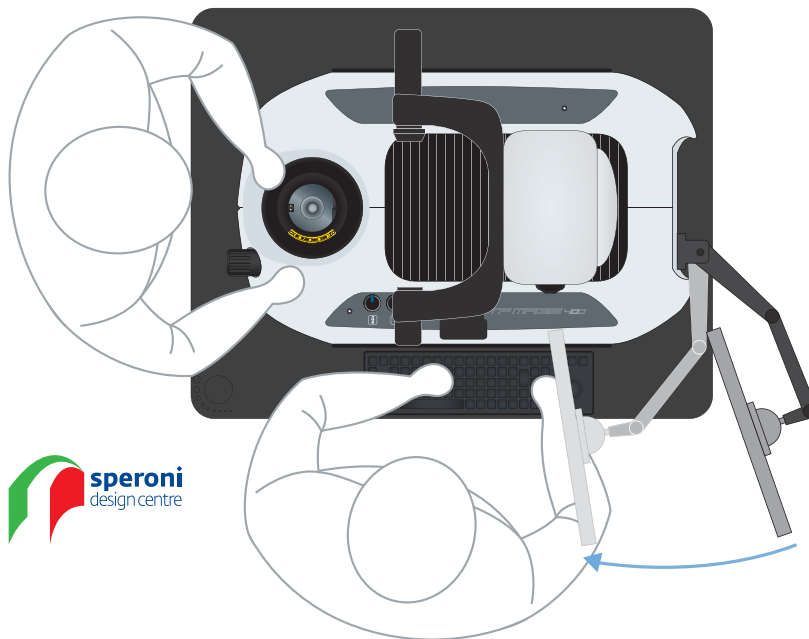
As for all of the *SPERONI Tool Presetting & Measuring Systems*, the structure of *MAGIS* is completely made of aged pearlitic cast iron in order to guarantee the best thermal stability. Contrasting most presetter designs, the homogeneous structure of *MAGIS* resolves all of those issues one encounters on systems which use light alloys and/or granite that have a different and unstable reaction to changes in the temperature and the environment.

Homogeneity is a key design element which has been proven on *SPERONI* systems for now over 50 years and in the metalworking field for even longer. The choice of materials for the basic structure of our systems is made in order to guarantee this fundamental design criterion.

极致的人体工程学
maximum ergonomics



STP MAGIS 600
Z Axis 600 mm / 26.32"
X Axis 400 mm / 15.75"
Max ø 350 mm / 13.78"
* Max ø 420 mm / 16.54"



SPERONI深入研究并高度重视人的习惯和特点，MAGIS设备结构把人体工程学发挥到了极致。

在刀具预调仪领域，SPERONI在机器结构设计方面所做的努力和贡献是独一无二的。

The high consideration and attention to the human factor is reflected in the maximum ergonomics expressed on *MAGIS* systems. *SPERONI's* design efforts in this field have always delivered unmatched ergonomic solutions.

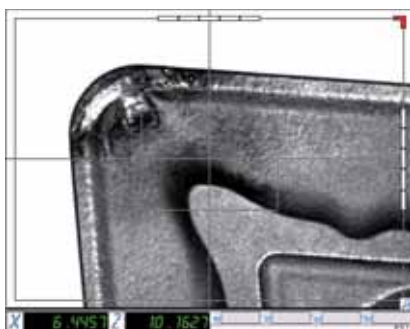


精密源于设计
precision by design

坚实的设计与卓越的制造能力，消除了环境温度变化对设备精度的影响，避免了工人在温度变化时或每次换班时频繁的校正基准。这也是SPERONI设备在使用多年后，仍然保持精度与重复精度的重要因素之一。对于机械精度，有些对刀仪制造商通过软件补偿机械精度的损失，实际上通过软件补偿是无法真正还原机械精度，精度源于机械结构。

The solid design, together with our excellence in manufacturing, eliminates the need for frequent recalibration due to changes in temperature during the work shift; as well as guaranteeing the precision and repeatability of your system year after year. Due to this fact, software compensation - as offered by other presetter manufacturers - is not needed in order to compensate for misalignment. The precision comes from the mechanical construction.

成像系统
vision system



高频亚像素分析提取；45倍光学放大；高清传感器集成可控光源；强大的放大功能；刀具切削刃清晰的呈现在屏幕内在任何位置，动态十字线都可以准确捕捉并精确计算与测量。

亮度可调的刀具表面检查灯可以帮助您检查与评估切削刃表面状况，避免在切削时出现崩刃。

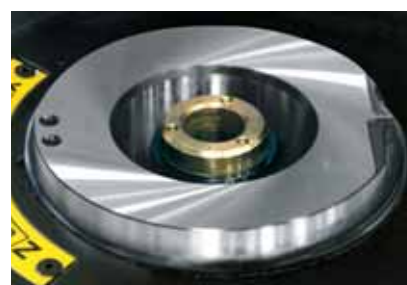
High frequency sub-pixel analysis delivers a 45X standard optical magnification. Together with the powerful zoom function and integrated episcopy, a clear and easy to evaluate live image of the cutting edge is displayed in any condition. The SPERONI-designed integrated episcopy front light system allows you to see and evaluate the wear conditions of your tools before they are utilized, thus avoiding costly breakdowns in operation.

主轴 spindle SPERONI 的主轴制造标准依据世界最高的主轴制造标准，稳定可靠。SPERONI 的主轴精度是无与伦比的。主轴同心度与跳动均为 $1\ \mu\text{m}$ 。

The integrated high precision vertical rotating spindle is designed according to SPERONI's world famous standards of robustness, reliability and unmatched precision - $1\ \mu\text{m}$ concentricity .



mandrino integrale bloccaggio automatico per utensili CAPTO®*
automatic clamping integral spindle for CAPTO® tooling*



mandrino integrale bloccaggio automatico per utensili HSK*
automatic clamping integral spindle for HSK tooling*

特性 highlights

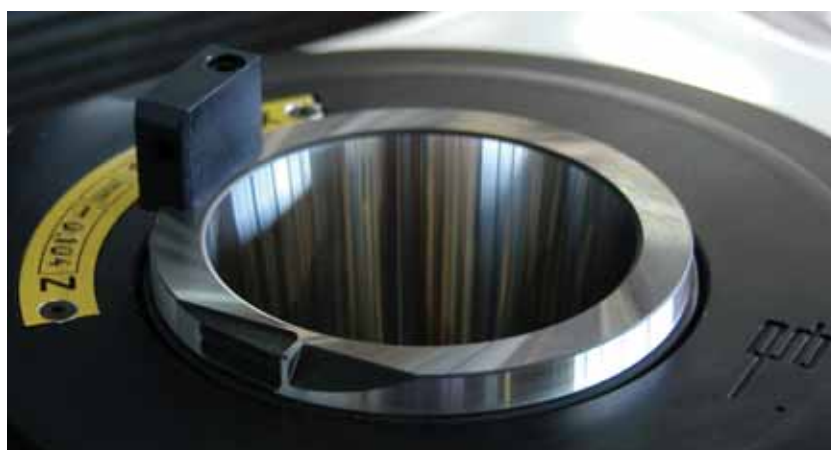
- > 均质结构
- > 尺寸紧凑
- > 无与伦比的精度
- > 海德汉® 玻璃光栅尺
- > 施利博格® 直线导轨
- > 索尼® CCD相机
- > 马赛-奥伯特® 光学镜头
- > 费斯托® 气动元件
- > 著名品牌的控制器
- > SPERONI 主轴系统
- > 无与伦比的性价比

- > homogeneous structure
- > compact size
- > unparalleled precision
- > Heidenhain® glass scales
- > Schneebberger® linear guideways
- > Sony® CCD cameras
- > Marcel Aubert® optics
- > Festo® pneumatics
- > brand PC-based controls
- > SPERONI original spindle system
- > unrivaled price/performance ratio

集成校准刃 integrated calibration edge

- > 自动机械拉紧主轴，
- > 主轴自动聚焦系统、全自动CNC系统、X/Z轴CNC控制系统
- > 数据输出（后置处理器）与网络通讯

- > manual operation, automatic mechanical clamping*, cnc spindle*, cnc X and Z axis*
- > data output (post processor) and network connection



单手操作的快速轴向移动系统操作者可以同步移动或单独移动X/Z轴。符合人体工程学的按钮气动激活运动系统，移动平稳而精准。

Rapid axis movement has been designed to maximize the ease of use of the system. Pneumatically activated ergonomic independent and simultaneous buttons guarantee smooth and precise movement.



精密研磨的高精度主轴，主轴上集成校准刃，可以快速校正基准，无需使用额外的基准规。

Precision ground integrated spindle calibration edge for the fast and easy recalibration of the system. Due to this integrated gage the system does not require the use of any external caliper or master.

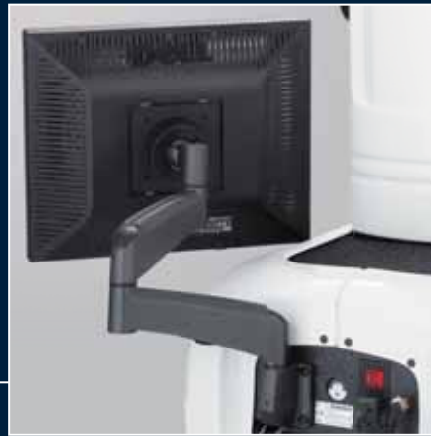


符合人体工程学的X轴与Z轴微调手轮，微米级调整精度，移动平滑，操作方便



Ergonomically designed X axis (diameter) and Z axis (height) fine adjustment hand wheels allow for micron precise smooth adjustments throughout the system's range of travel.





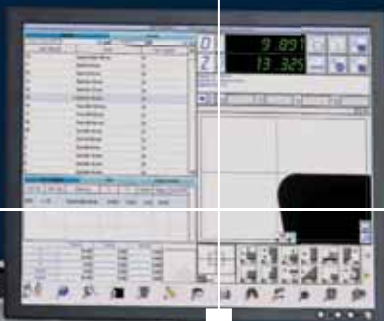
符合人体工程学的显示器支撑臂，可以根据您的需要调整到最佳的位置与角度，让您的工作轻松而舒适。

Ergonomically designed LCD monitor support arm provides for the best angle and work position possible in order to make your job easier and more comfortable.



符合人体工程学的操作按钮，操作方便而舒适。主轴旋转锁紧按钮4X90分度锁紧。主轴机械拉紧刀具按钮。刀具表面检查灯调整按钮。

Industrial grade controls for the spindle disk brake system, the 4-position index* and tool clamping* are conveniently positioned to maximize ergonomics and ease of use. An ergonomic knob easily allows for the adjustment of the front light system.



海德汉玻璃光栅尺
施利博格直线导轨
坚固而精密的滚珠轴承，保证在全行程范围内最高等级的精度与重复测量精度。



Micron precise Heidenhain® glass scales, state of the art Schneberger® guideways, together with the largest and toughest recirculating ball bearing contact surface in its class, guarantee the highest precision and repeatability along the whole system's measuring range.

MAGIS PC控制系统
MAGIS PC-based control

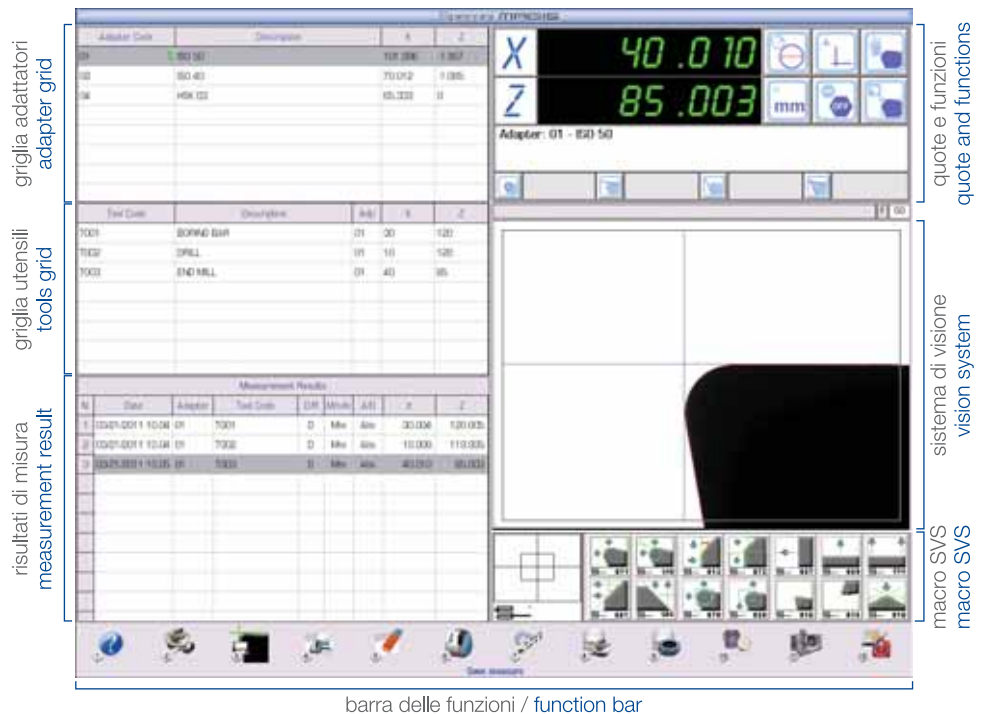
基本控制单元配置了22寸高分辨率的TFT显示器1280x1024p清晰显示刀具测量图像以及相关数据，界面清晰，操作便捷。

最新升级的图形界面，最大程度发挥人的视觉系统，MAGIS对刀仪的操作非常直观而简单。

强大的在线帮助功能，确保工人安心操作，消除您的后顾之忧。

The new *MAGIS PC-based* control and image processing system is supplied with a brilliant high resolution 22" TFT monitor - 1280x1024px - for a crisp and clear visualization of your tool data.

The newly designed graphical interface makes the *MAGIS* control the most intuitive and easy to use vision system on the market today. A powerful help online function is also integrated in order to guarantee a trouble-free and secure use at any time.



软件特性
software highlights

- > 单个窗口的图形界面
- > 动态十字线自动跟踪切削刃
- > 45X光学放大，
 可选 90X/120X
- > 超过200种以上的刃形图像
- > 管理3000把以上刀具
- > 转换套与零点管理
- > 打印格式设置与管理
- > 千分表与跳动功能
- > 图像合并功能
- > 图像全屏与120倍放大功能
- > 后置处理器（数据传输）
- > 数据备份功能
- > single window graphical interface
- > flying crosshair
- > 45X standard magnification,
 Optional 90X / 120X
- > over 200 measuring icons
- > Tool Management for 3,000 tools
- > adapter & zero point management
- > print management
- > dial indicator and run-out functions
- > MaxP function
- > full screen function and zoom to 120X
- > base Post Processor
- > data backup function

200种刃形数据库
200 standard icons

200种以上刃形数据库，涵盖了所有类型的切削刃。系统自动识别，精确测量所有类型的刀具。

Over 200 specifically designed standard measuring icons allow for the precise and automatic measurement of all tool forms.

刀具与转换套管理
tool and adapter management

可以管理3000把以上刀具信息包括刀具参数，刀具附件，装配信息以及公差。转换套管理功能具有转换套零点监控功能确保转换套匹配正确的参数，避免机床出现撞刀或产生废品。

Integrated Tool Management for the storage of 3,000 tool assemblies and their specific tolerances. Adapter management and control includes an automatic zero-point monitoring feature which helps avoid crashes, rejects and machine downtime.



跳动检测
Run-Out function

跳动检测功能可以非常容易并快速的测量刀具跳动。

如果结合主轴自动聚焦功能使用，将帮助您更加轻而易举并精准的调整刀具。

Automatic *Run-out* feature is the easiest and fastest way to determine your tool's run-out without any specific programming. Coupled with the *Autofocus Spindle System* option this user friendly feature will allow you to assemble and adjust your tools effortlessly and precisely.



后置处理器
base Post Processor

刀具测量完成后，后置处理器可以自动并批量生成刀补程序文件，并可以传输到不同的机床控制系统。无需繁琐的输入每把刀具刀补参数，避免手动输入可能出现的错误。文件可以通过网络、FTP服务器、U盘等方式进行传输。

Integrated Post Processor allows for the automatic generation of the offset files for each measured tool. The generated file can be transferred to the different machine tool's controls via network, FTP server, USB stick etc. for a mistake free operation.



MAGIS cnc

SPERONI MAGIS CNC全自动刀具预调仪，CNC全自动控制系统（选配）避免了人为因素对测量结果的影响。

MAGIS CNC的特点是：快速、精确、操作简单。

CNC系统允许独立操控每个轴，可以快速移动并准确定位。

主轴自动聚焦功能可以执行自动测量程序，提高测量速度，消除人为因素对测量精度的影响。

无与伦比的重复精度与质量，将帮助您大幅提高生产效率与效益。

SPERONI MAGIS tool presetter and measuring system is now also available in a numerically controlled version for operator independent measuring results.

Speed, precision and ease of use are some of the features of the innovative designed driving system of MAGIS CNC.

The numeric control system allows for the operator independent, fast and μ -precise positioning of the axes.

Together with the optional *Autofocus Spindle*, you can now automatically execute measuring cycles adding speed and operator independent precision to your measurements.

The unmatched repeatability and quality will further increase efficiency and profitability in your operation.



主轴自动聚焦 *
Autofocus Spindle *

主轴自动聚焦帮助您自动判定刀具最佳测量位置，自动测量刀具的直径与长度。主轴自动聚焦功能无需任何程序，只需一个按键。

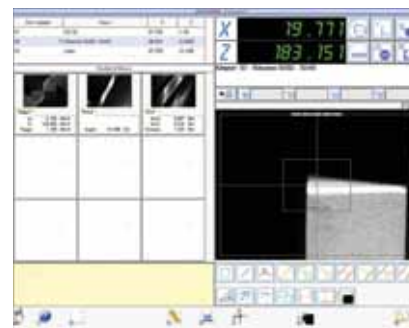
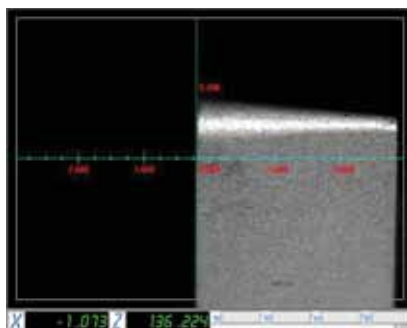
Autofocus Spindle can be added in order to automate the important determination of the maximum diameter. The cutting edge's highest point is automatically measured independent of the operator and without any programming.



中心高相机系统 *
Centre Height Camera System *

中心高相机包含LED照射光源，十字线可以旋转与调整。SEF SPERONI Edge Finder (刃型识别系统) 便于调整切削刃中心高度。

Centre Height Camera System complete with LED based front light technology together with swiveling and adjustable cross-hairs and SEF - SPERONI Edge Finder - allows for the adjustment of tool cutting edges center height.

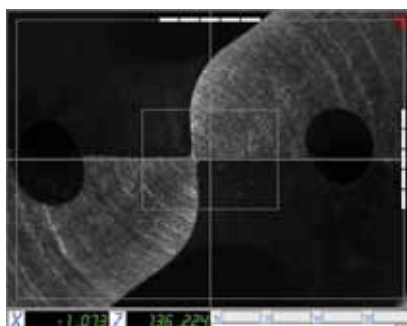


旋转测量臂 (第二相机系统) *
Swing Arm Camera System *

通过第二相机可以对刀具进行全面的测量与检查。第二相机带入射光源，二者完美结合，可以测量刀具所有重要的参数。

Swing Arm Camera System for the measurement and inspection, via incident light, of all important tool parameters. This system is fully integrated so that the inspection is carried out during the presetting and measuring of the tool with no additional setup.

通过选配第二相机可以进行刀具的全面测量和预调，无需其他设备。

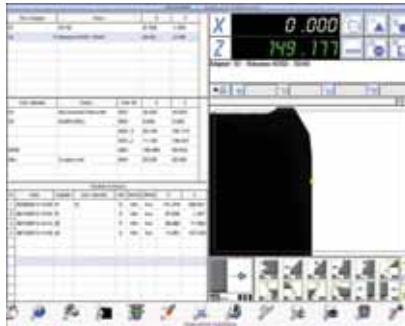


卡规
snap gage



测量卡规直径为50mm，可以用于精密铰刀的测量。

Integrated 50mm (ø) snap gage for the accurate measurement of reamers.

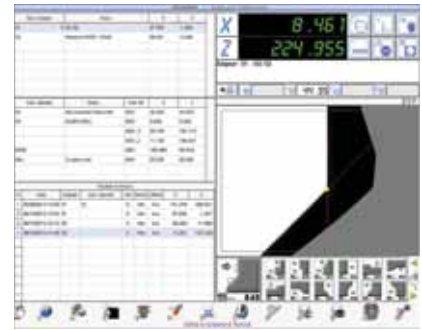
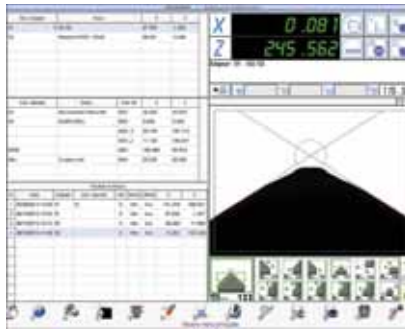


阶梯钻
step drills



对于阶梯刀具的测量，如阶梯钻等。

Drills as well as step tools measurement are easily and automatically performed.

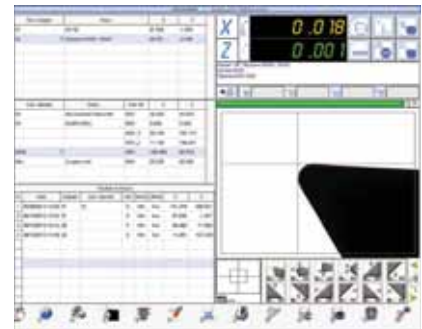
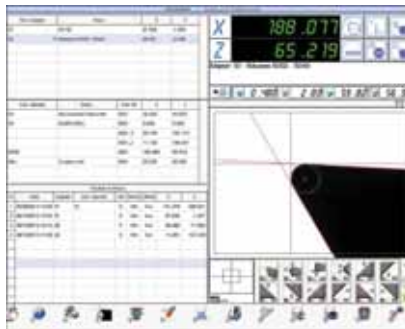


动态十字线
flying crosshair



自动跟踪测量，自动测量刀具的直径、长度、角度及圆弧半径。

Automatic measurement of height, diameter, angles and nose radius.



跳动功能
Run-out function



可以最容易，最快捷的测量刀具的跳动，不需要任何特殊的程序。

The easiest and fastest way to determine your tool's run-out without any specific programming.

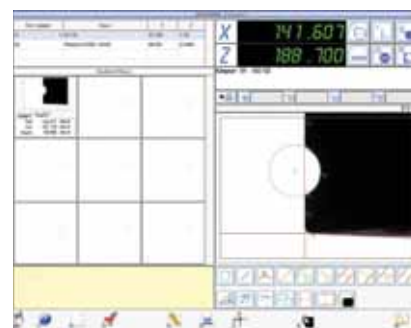
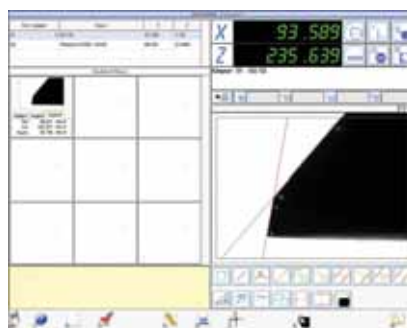


砂轮测量软件包 *
wheel pack measurement *



测量砂轮并生成后处理程序传输到罗曼蒂克, 安卡等磨床。

Measurement and post processor of any wheel pack for Rollomatic®, Anca®, etc.

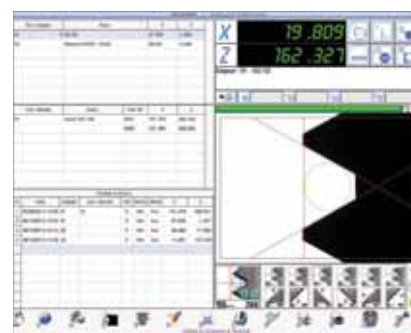
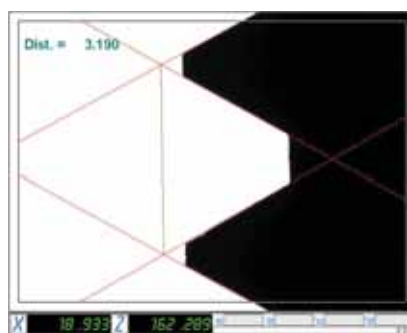


丝锥
threading tools



操作简单, 测量精确, 轻松获得丝锥的牙距, 外径, 中径和小径等尺寸。

Easy and accurate measurements of pitch length, pitch diameter, etc.

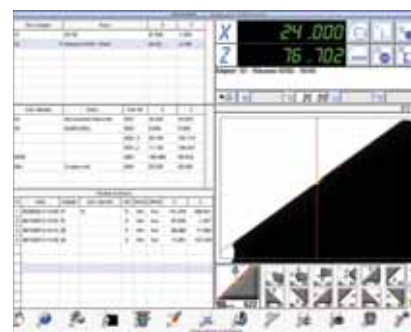
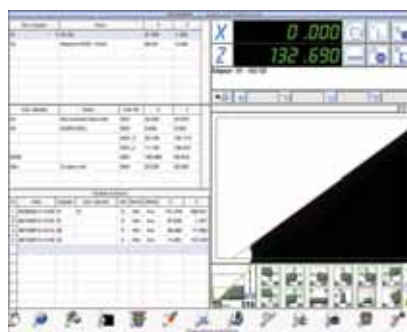


倒角刀
chamfering tools



自动跟踪, 使得倒角刀的测量非常容易。

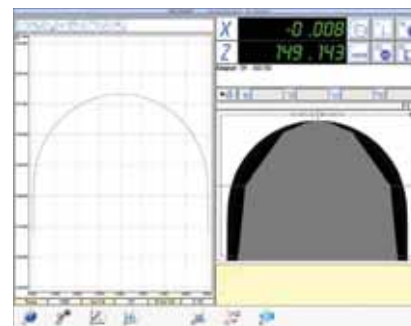
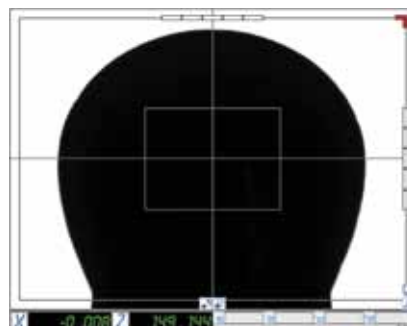
Measurement of chamfers are easily and automatically performed.



最大轮廓
MaxP

刀具旋转一周后, 自动的获得刀具的最大轮廓。

MaxP is designed to accurately measure a tool in its complete rotation automatically and without any programming.



- RKC系统 * RKC system *** MAGIS RKC系统—专利设计。拉钉拉紧，可以机械拉紧任何标准的拉钉。可应用于ISO/BT50，ISO/BT40，ISO/BT30。
 The proprietary design of *MAGIS RKC System - Retention Knob Clamping -* (unique in the industry) allows for the mechanical clamping of any standard size pull-stud: available for ISO/BT 50, ISO/BT 40 and ISO/BT 30.
- AIC套筒 * AIC sleeves *** SPERONI AIC套筒具有自动机械拉紧功能，通过该套筒可以机械拉紧ISO/BT40，ISO/BT30，以及各种HSK类型的刀具。
 Original *SPERONI AIC Sleeve* include an *Automatic Integrated Clamping system* (unique in the industry) which allows for the mechanical clamping of any tool: ISO/BT 40 and ISO/BT 30, and HSK systems.

ISO50 TAPER > HSK MANUAL CLAMP

ISO50 > HSK25	ISO50 > CAPTO® C3
ISO50 > HSK32	ISO50 > CAPTO® C4
ISO50 > HSK40	ISO50 > CAPTO® C5
ISO50 > HSK50	ISO50 > CAPTO® C6
ISO50 > HSK63	ISO50 > CAPTO® C8
ISO50 > HSK80	
ISO50 > HSK100	
ISO50 > HSK125	

REDUCTION SLEEVES NO CLAMP

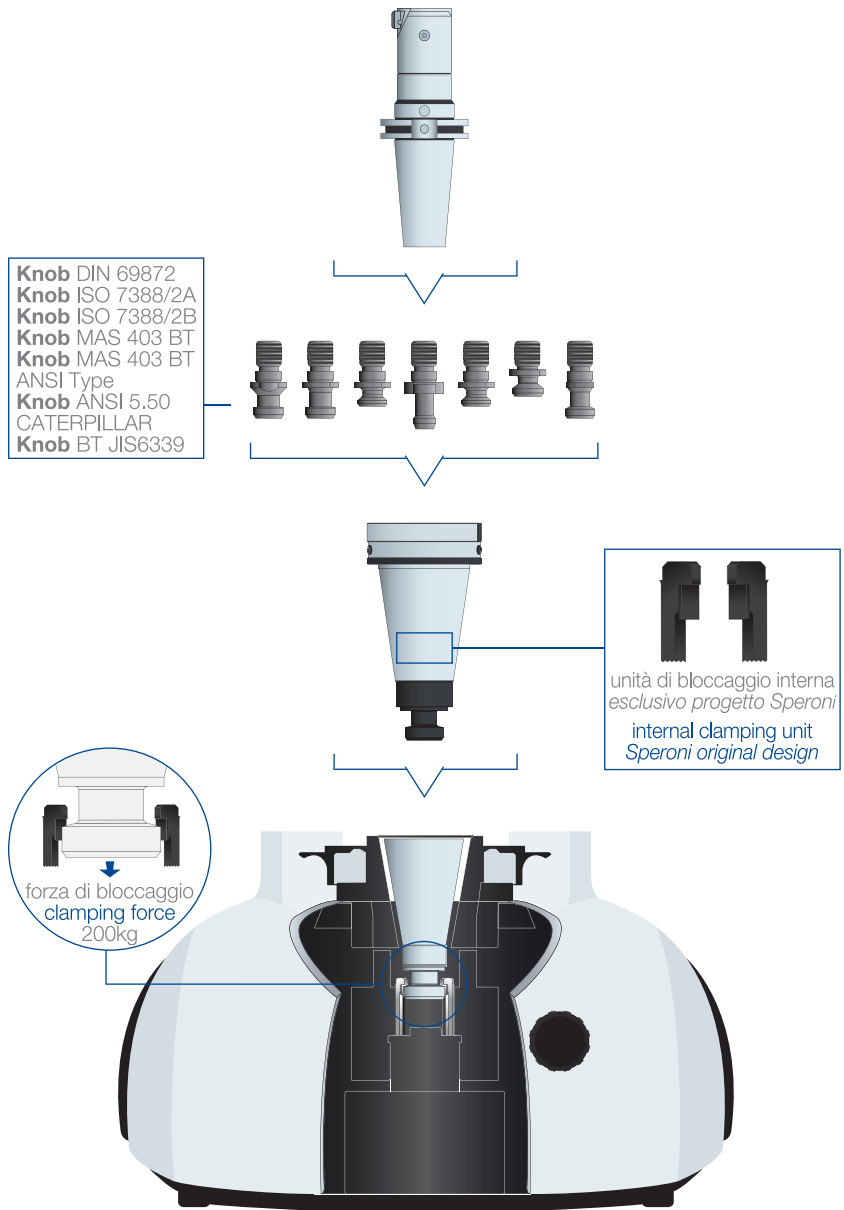
ISO50 > ISO40	ISO50 > VDI30
ISO50 > ISO45	ISO50 > VDI40
ISO50 > ISO30	ISO50 > VDI50
ISO40 > ISO30	ISO50 > VDI63
	ISO50 > VDI80

AIC SLEEVES

ISO50 > ISO40	ISO50 > HSK40
ISO50 > ISO45	ISO50 > HSK50
ISO50 > ISO30	ISO50 > HSK63
ISO40 > ISO30	ISO50 > HSK80
ISO50 > HSK32	ISO50 > HSK100

RKC SPINDLES

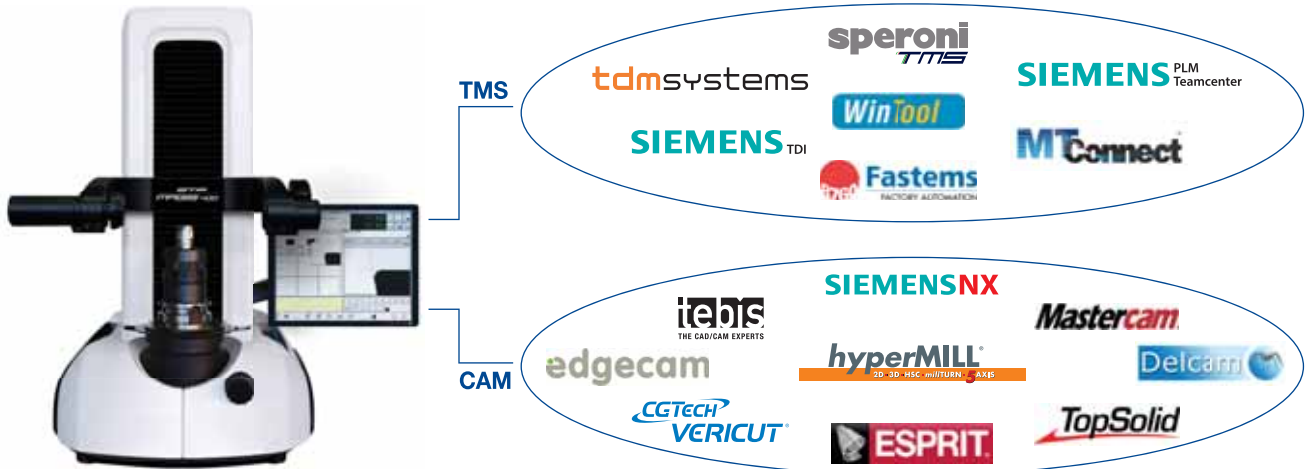
ISO50	CAPTO® C3
ISO40	CAPTO® C4
ISO30	CAPTO® C5
HSK32	CAPTO® C6
HSK40	CAPTO® C8
HSK50	
HSK63	
HSK80	
HSK100	



与CAM和TMS的通讯
integration to CAM and TMS

通讯系统把刀具预调仪与刀具管理系统和CAM进行无缝连接，避免人为手动输入数据的繁琐和错误，安全并实现数据传输。

Eliminate data redundancy and safely share data amongst your systems with the powerful **SPERONI** integration options.



连接
connections

简单安全的将刀具测量数据传输到您的机床。

Easily and securely transfer your measured tool data to your machine tools.



A 通过局域网或FTP服务器自动的将刀补数据传输到所有的机床。

Mistake free automatic download of offset data to all of your machine tools via your company network or FTP server.

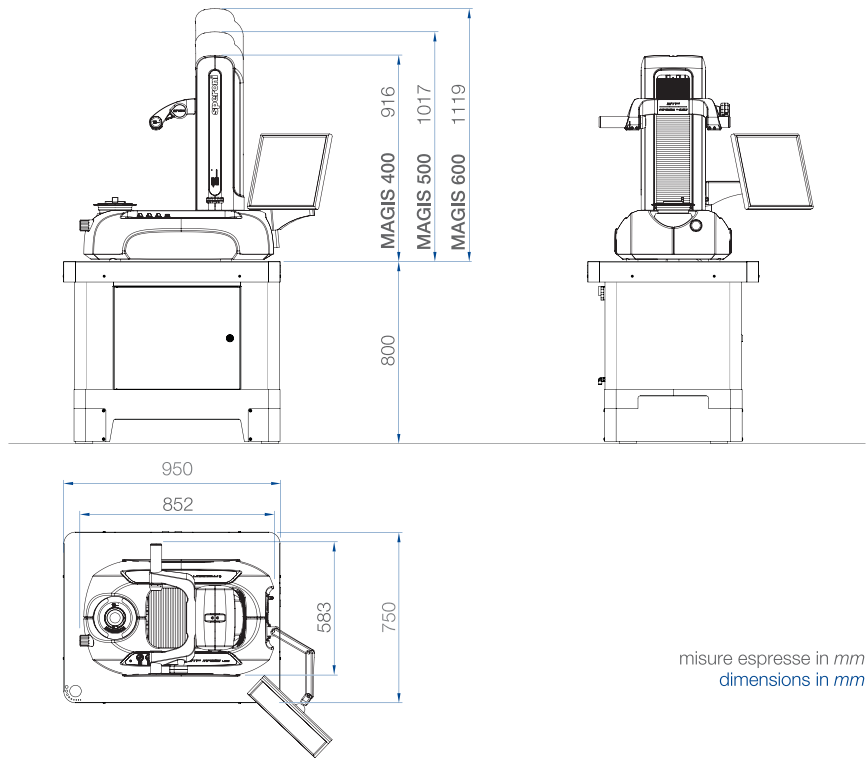
B 通过RS232接口或专用连接直接进行数据传输。

Direct Integration via RS232 or dedicated connection with your NC machine control.

C 通过各种刀具识别系统进行数据传输，如芯片、二维码或条形码等。

Full integration with any read-only and read/write tool identification systems.

技术参数
technical data



基础版本控制系统	Simple Vision control	●
45倍光学放大	45X standard magnification	●
刀具表面检查灯	episcopy front light system	●
气动锁紧X/Z轴	pneumatically activated axis movement	●
X/Z微调系统	fine adjustment X & Z axis	●
ISO50高精度主轴	integral spindle ISO 50 high precision	●
主轴制动	spindle brake	●
主轴集成校准刃	integrated calibration master	●
主轴同心度	spindle concentricity	1µm
显示分辨率	axis resolution	1µm
电压	power supply (V)	100 ÷ 230
功率	power consumption (KVA)	0.5 ÷ 1.5
气压 (Mpa)	pneumatic requirements (Mpa)	0.5 ÷ 0.7
Edge 2.0系统	EDGE 2.0 control	○
Edge Pr0系统	EDGE Pro control	○
CNC单元X, Z, A&Y	CNC unit for X, Z, A e Y	○
自动聚焦	autofocus spindle	○
机械拉紧主轴	universal spindle	○
90倍光学放大	90X standard magnification	○
120倍光学放大	120X standard magnification	○
中心高相机	centre height camera	○
第二相机系统	swing arm camera	○
数据后处理	Post Processor	○
与CAM及TMS通讯	integration to CAM and TMS	○

STP设备功能模块与选项，可以根据各地市场情况或法律规定有所不同。样本上的参数参考。SPERONI可能会因为技术或市场原因修改参数。

STP equipment, models and options may vary due to specific market or legal requirements. The data in this catalog is purely indicative. For technical or commercial reasons SPERONI spa may modify the models described at any time.

standard ● option ○



新的STP FUTURA刀具预调与刀具测量系统，是我们50多年来革新技术的延伸，我们一直是行业内技术领先者。

STP FUTURA引领人类工程学与机器易用性上了一个新的台阶，也带来了刀具预调与刀具测量领域新世界性的精度革命。模块化的设计与丰富的配置，不仅为每一次测量提供正确的解决方案，同时全面的可升级方案以满足您不断发展的需要。

She is the expression of our 50 years of innovative technology. She is ingenious, precise, revolutionary, unique and innovative. She is our most amazing measuring device yet.

Her name is FUTURA and she is full of future proof technology.

When one creates something new, something different, something unique, one has to re-think, re-design, re-imagine, re-configure, re-organize, and in some aspects re-confirm.



50 YEARS OF
PRECISION
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