

EVOSET

...for best measuring results



PWB TOOL MASTER

The absolutely precise and most efficient solution for professional setting, measuring, testing and management of tools.

TOOL MASTER

The finest high-precision
Swiss-built presetting
systems lead you to success

The PWB TOOL MASTER Modular System provides a professional solution for setting and measuring tools.

The TOOL MASTER is easy, fast, safe, precise, and delivers highly accurate results. With the TOOL MASTER, you can greatly improve the efficiency and profitability of your tool-setting and machinery operations.

We guarantee you higher quality, enhanced safety, increased speed, improved process reliability and less machine downtime.



- 4 TOOL MASTER
- 11 OPTIONS
- 13 SOFTWARE
- DATA TRANSFER
- 14 SERVICE & AFTER SALES
- 15 EVOSSET

TOOL MASTER

CNC | NC

FULL AND SEMI-AUTOMATIC MEASUREMENT

With the TOOL MASTER CNC | NC, tools can be measured at the touch of a button. This makes the measurement results accurate, visual and the measuring process fast and efficient. Absolute precision with simple operation. With brand-name components and our EyeRay® CNC image processing system, we guarantee you highest process reliability and quality.



FEATURES

- CNC control in X | Z and C axes (Also available with motorized C axis)
- EVOSET high-precision spindle (power clamping) Quick clamping system PSE
- Joystick for X | Z | C axes with a button for individual axis operation
- EyeRay® CNC image processing
- Digital camera with telecentric lens
- All in One PC 22" with touch screen
- Measuring system with glass scales
- Automatic calibration
- Endless motorized fine adjustment
- Tool inspection in transmitted and reflected light
- Cabinet with adapter tray for tools
- Thermal printer incl. 1 roll of labels
- Safety E-Stop
- Adapter and tool management
- EyeRay® Interface
- Online support interface
- Operator management
- Multi-lingual measuring software EyeRay®
- Connector with adapter EU/CH
- Operating system Windows 10
- Electrical voltage 230 Volt

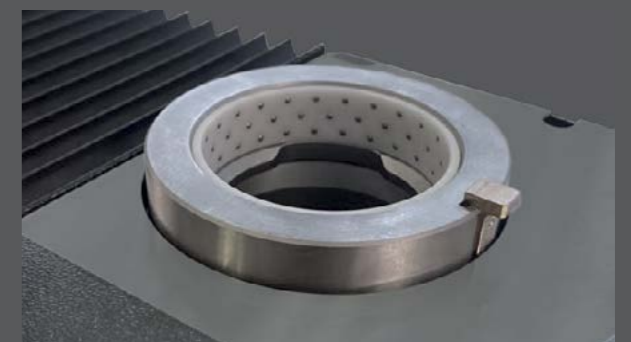
OPTIONAL

- Data transfer through post-processor, RFID data carrier (Balluff), QR code, customer's specialized solutions

MEASUREMENT RANGE

| | |
|-------------|-------------|
| X=400 Z=365 | X=600 Z=365 |
| X=400 Z=565 | X=600 Z=565 |
| X=400 Z=665 | X=600 Z=665 |

On request: measuring ranges up to Z=760 mm



PSE POWER CLAMPING PSE SPINDLE

- Quick clamping system PSE with pull-in force: HSK=3 kN / SK=1.2 kN
- Quick adapter change in maximum 5 seconds
- High axial radial runout accuracy from 2μ
- Integrated calibration edge for exact and fast determination of the spindle zero point
- Motorized spindle brake for locking of the spindle in the desired position over the entire 360°

TOOL MASTER

QUADRA

The TOOL MASTER Quadra guarantees: fast, easy and high-precision tool setting & measuring for all production requirements.

The professional and compact solution for higher quality, optimization of production processes and flexibility.

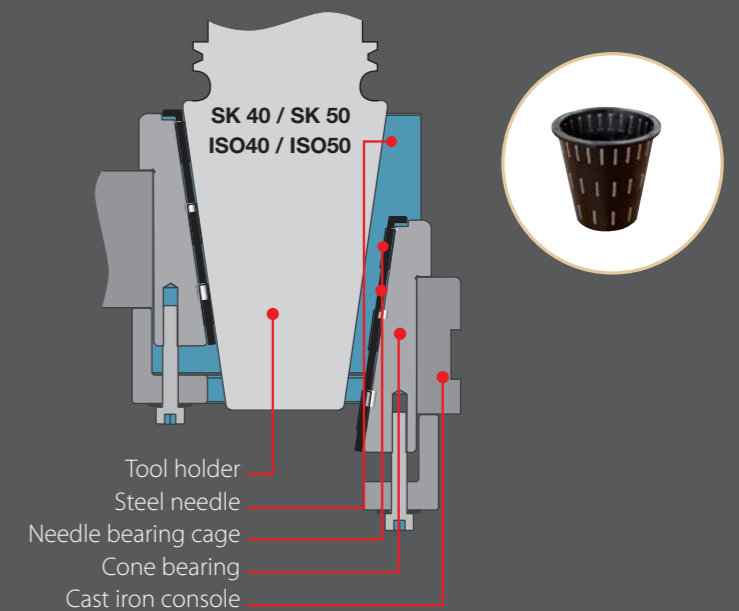
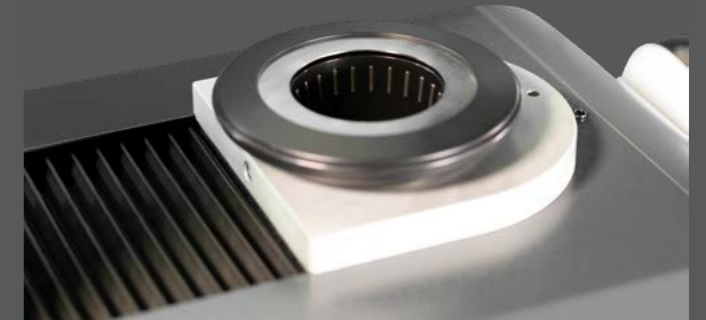


FEATURES

- Manual control in X | Z and C
- EyeRay® Quadra image processing
- CMOS digital camera with telecentric lens
- All in One PC 22" with touch screen
- Measuring system with glass scales
- Endless manual fine adjustment
- Integrated ISO50 or ISO40 tool spindle
- Pneumatic clamping in X and Z
- Spindle clamping
- Tool inspection in transmitted and reflected light
- Cabinet with integrated tool spindle tray for tools
- Thermal printer incl. 1 roll of labels
- Adapter and tool management
- EyeRay® Interface
- Online Support Interface
- Operator management
- Multi-lingual measuring software EyeRay®
- Highest concentricity & highest measuring repeatability thanks to the EVOSET high precision spindle needle bearing
- High axial radial runout accuracy needle bearing from 2μ; vacuum spindle KV from 2μ
- Plug-in connector with adapter EU/CH
- Operating system Windows 10
- Electrical voltage 230 Volt

OPTIONAL

- Measuring field shift in X and Z axis
- Pneumatic selective clamping in X and Z
- Data transfer through post-processor, RFID data carrier (Balluff), QR code, customer's specialized solutions
- Two-camera systems
- Indexing device for turning tools
- Vacuum clamping with pneumatic Spindle brake
- High precision CNC spindle with quick clamping system PSE
- Pull-in force: HSK=3 kN / SK=1.2 kN



MEASUREMENT RANGE

| | |
|-------------|-------------|
| X=400 Z=400 | X=600 Z=400 |
| X=400 Z=600 | X=600 Z=600 |

On request: measuring ranges up to Z=760 mm

TOOL MASTER

BASIC

The unbeatable and efficient entry-level solution for exact measurements of tools.

Equipped with all necessary measurement functions.



FEATURES

- Plug & Play solution
- Manual control in X | Z | C
- EyeRay® Basic image Processing
- CMOS digital camera with telecentric lens
- PWB desktop PC solution with 18.5" monitor
- Integrated ISO50 or ISO40 tool spindle
- Pneumatic clamping in X and Z
- Endless manual fine adjustment
- Fast focusing of the tool cutting edge
- Tool inspection in transmitted and reflected light
- EyeRay® interface
- Online support interface
- Multi-lingual measuring software EyeRay®
- Highest concentricity & highest measuring repeatability thanks to the EVOSET high precision spindle needle bearing
- High axial radial runout accuracy needle bearing from $< 2\mu$; vacuum spindle KV from $< 2\mu$
- Operating system Windows 10
- Electrical voltage 230 Volt

OPTIONAL

- Cabinet with adapter tray for tools
- Master mandrel, small
- Thermal printer incl. 1 roll of labels
- Tool inspection in reflected light
- Indexing device for turning tools
- Mechanical spindle brake
- Vacuum clamping with pneumatic spindle brake
- Data transfer through post-processor, RFID data carrier (Balluff), QR code, customer's specialized solutions

MEASUREMENT RANGE

X=400 Z=400

X=400 Z=600

TOOL MASTER

5



With TOOL MASTER 5, you can measure tools with the highest demands. We guarantee proven highly accurate measurement results and highly efficient measuring process.

FEATURES

- Joystick & Touch control in X | Z axes
- EyeRay® TM5 image processing
- CMOS digital camera with telecentric lens
- All in One PC 22" with touch screen
- Measuring system with glass scales
- Endless automatic fine adjustment
- Integrated ISO50 or ISO40 tool spindle
- Spindle clamping
- Tool inspection in transmitted and reflected light
- Thermal printer incl. 1 roll of labels
- Adapter and tool management
- EyeRay® interface
- Online support interface
- Operator management
- Multi-lingual measuring software EyeRay®
- Highest concentricity & highest measuring repeatability thanks to the EVOSET high precision spindle needle bearing
- High axial radial runout accuracy needle bearing from $< 2\mu$
- Plug-in connector with adapter EU/CH
- Operating system Windows 10
- Electrical voltage 230 Volt

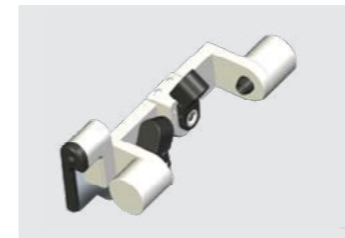
OPTIONAL

- Data transfer through post-processor, RFID data carrier, customer's specialized solutions
- Cabinet
- Indexing equipment for turning tools
- Vacuum clamping with pneumatic spindle brake

MEASUREMENT RANGE

X=400/600/1000 Z=600/900

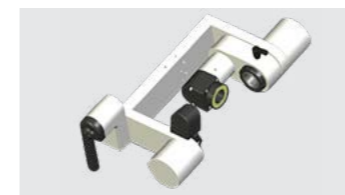
OPTIONS



CHC / Center Height Camera
Height measuring of turning tools



YAC / Y-Axis Camera
Measuring of multi-edge tools with offset Cutting edges.
Measuring range + 20 mm up to - 20 mm



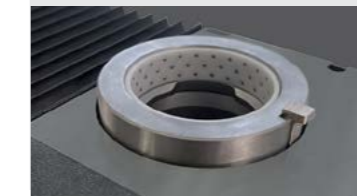
VHC / Vertical -Horizontal Camera
Measuring in horizontal and vertical directions. The camera is horizontally and vertically adjustable with any intermediate angles – this allows measuring of cutting angles and radii



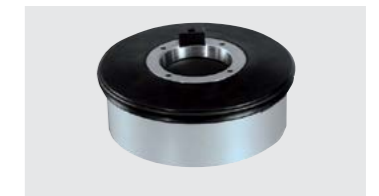
LED ring light



Inspection/front light



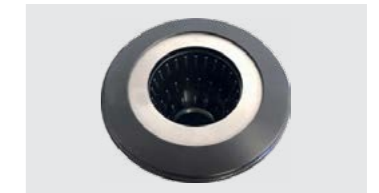
Power clamping spindle PSE



Vacuum spindle



Indexing equipment for rotary tools



Needle bearing spindle with spindle brake



Tool tray



Master mandrel
• SK40 / SK50 : \varnothing 30 x330
• SK40 / SK50 : \varnothing 30 x 90

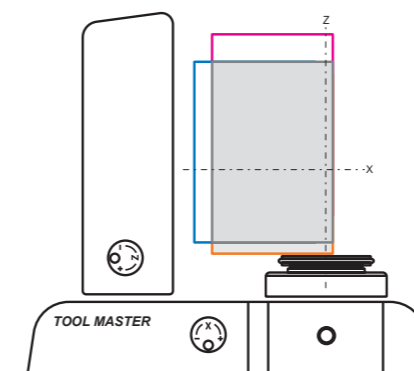


Printer



Cabinet

Measuring field variations



- X 1
- X 2 Standard (Z500)
- ZD 1 Standard (Z750)
- ZH 1

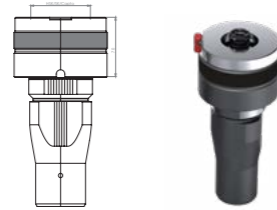


Pneumatic selective clamping in X and Z

CNC | NC Clamping Inserts | Reduction | ADAPTER

CNC | NC Clamping Inserts

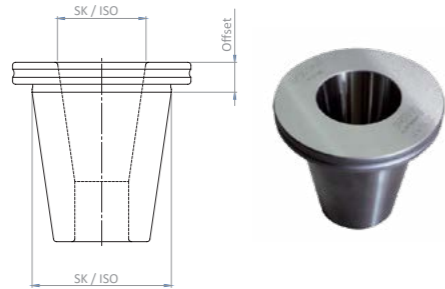
Special adapters on request



| | |
|-------|------------------------------|
| SK | 30 40 50 |
| HSK | 32 40 50 63 80 100 |
| CAPTO | C3 C4 C5 C6 C8 |

SK

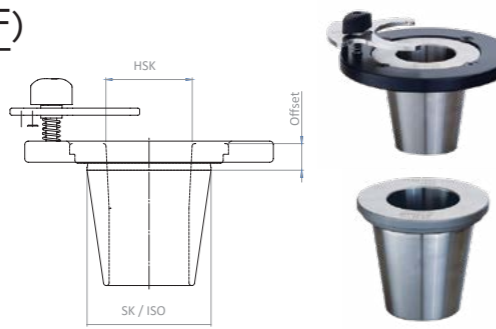
- Reduction SK/ISO to SK/ISO
In-house calibration ensures consistent quality
- Offset value is engraved on the reduction according to the following table



| Internal shape | Offset value (Z) | |
|----------------|------------------|--------------|
| | SK50 / ISO50 | SK40 / ISO40 |
| SK10 | 30 mm | 30 mm |
| SK15 | 30 mm | 30 mm |
| SK20 | 15 mm | 15 mm |
| SK25 | 15 mm | 15 mm |
| SK30 | 15 mm | 15 mm |
| SK35 | 15 mm | 15 mm |
| SK40 | 15 mm | - |
| SK45 | 15 mm | - |

HSK (shapes A to F)

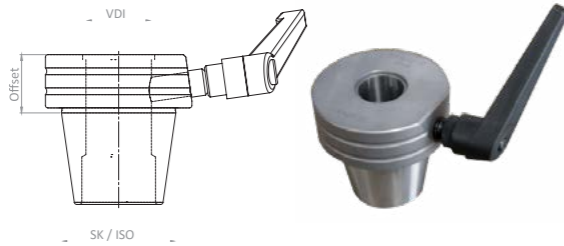
- Reduction SK/ISO to HSK, available with and without clamping attachment
- Offset value is engraved on the reduction according to the following table



| Internal shape | Offset value (Z) | |
|----------------|------------------|--------------|
| | SK50 / ISO50 | SK40 / ISO40 |
| HSK-A25 | 15 mm | 15 mm |
| HSK-A32 | 15 mm | 15 mm |
| HSK-A40 | 15 mm | 15 mm |
| HSK-A50 | 15 mm | 15 mm |
| HSK-A63 | 15 mm | 60 mm |
| HSK-A80 | 52 mm | - |
| HSK-A100 | 70 mm | - |

VDI with clamp lever

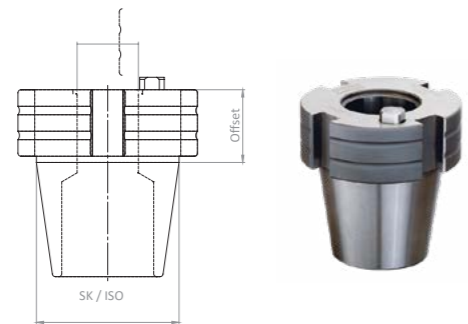
- Clamping of the VDI tool holder with clamping lever
- Clearance provided in the reduction for O-ring of the VDI shank



| Internal shape | Offset value (Z) | |
|----------------|------------------|--------------|
| | SK50 / ISO50 | SK40 / ISO40 |
| VDI16 | 50 mm | 50 mm |
| VDI20 | 35 mm | 35 mm |
| VDI25 | 35 mm | 35 mm |
| VDI30 | 35 mm | 35 mm |
| VDI40 | 35 mm | 70 mm |
| VDI50 | 35 mm | 90 mm |
| VDI60 | 100 mm | - |

VDI with index

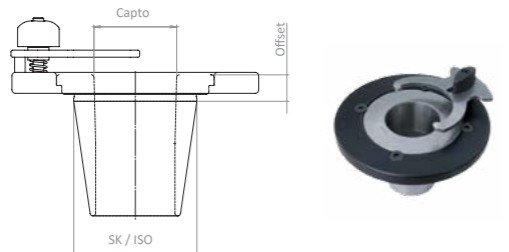
- 4x90° indexing on reduction. VDI tool holder is aligned in reduction by means of centring pins
- Clearance provided in reduction for O-ring of the VDI shank



| Internal shape | Offset value (Z) | |
|----------------|------------------|--------------|
| | SK50 / ISO50 | SK40 / ISO40 |
| VDI16 | 50 mm | 50 mm |
| VDI20 | 35 mm | 35 mm |
| VDI25 | 35 mm | 35 mm |
| VDI30 | 35 mm | 35 mm |
| VDI40 | 35 mm | 80 mm |
| VDI50 | 35 mm | - |
| VDI60 | 100 mm | - |
| VDI80 | 140 mm | - |

Capto ,Easy'

- Capto tool holder is centred using the 3 highest points of the polygon in the reduction, fixed with clamping claw



| Internal shape | Offset value (Z) | |
|----------------|------------------|--------------|
| | SK50 / ISO50 | SK40 / ISO40 |
| C3 | 15 mm | - |
| C4 | 15 mm | - |
| C5 | 15 mm | - |
| C6 | 15 mm | - |
| C8 | 52 mm | - |
| C10 | 80 mm | - |

SOFTWARE

With EyeRay® you are ahead worldwide

The EYERAY® software is reliable, easy to operate, modular and expandable – a world leader.

EyeRay® with its collection of software modules is a comprehensive and professional application for tool presetting, measurement and evaluation.

All PWB TOOL MASTER devices are equipped with

EyeRay® for simple and complex measuring tasks and guarantees a solution for every requirement.

- Easy to operate with only six basic icons
- Self-explanatory functional keys
- Expandable and upgradeable for any special measurement functions and requirements
- Quick measurements thanks to favorite shortcuts
- Fully automated operation
- Connection interfaces to all possible machine controls and manufacturing processes
- Guaranteed process reliability
- Consistently precise measurement results



DATA TRANSFER

Basis for conventional or modern manufacturing - optimized production processes from tool management, CAD/CAM to setting, measuring and shrinking of tools.

the various systems is simple, secure and quick.

EVOSET offers a range of interfaces to CAM systems as well as to all various machine controls. The data transfer and communication between

In modern manufacturing, the tool data is the basis of all production processes- from the CAD/CAM system through setting and measuring to the production of the workpiece.



DATA TRANSFER POSSIBILITIES

- Post-processor
- RFID data carrier (Balluff)
- QR CODE with scanning
- Data Matrix code
- USB stick or serial interface
- Label printing
- Customized connections

SERVICE & AFTER SALES

We offer you a comprehensive service to achieve and maintain maximum efficiency of production.

Our service team supports you for your individual requirements, installation and product training- with EVOSET you have not only high precision products but also highly professional assistance and broad manufacturing knowledge.

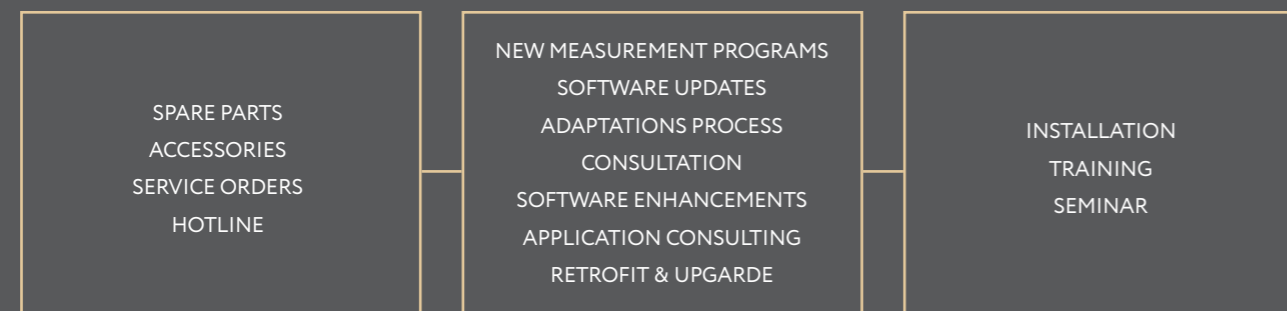
ADDED VALUE

- Customer service, refer to local agent or service@evoaset.com
- Remote maintenance (online support)- for any kind of software problem or for quick support
- Software updates for new or optimized functions
- Conversion, upgrade and retro fit kits for all devices
- Additional data connections and interfaces
- Individual customization of software & data entry of software
- Spare parts & accessories

To avail the best use of EVOSET PRODUCTS our excellently trained staff offers professional consulting,, commissioning and product training.



SERVICE - THE TRUE MEASURE OF VALUE



EVOSET

SWISS INNOVATION FOR THE WHOLE WORLD



The focus of the product lines in the optimal realization of the individual customer needs. EVOSET pursues intelligent and complementary solutions in the area of tool presetting management, measurement, inspection and shrinking.

We have experience with our own developments of devices and software. Our engineering staff guarantees know-how, success and efficiency for your product- we increase your productivity.

In addition to the strong product development and production, we offer a worldwide professional service in time to our customers.

As a partner of the manufacturing industry EVOSET continuously develops new Swiss quality products to further optimize the processes of the industry.

Your satisfaction and your success is our highest priority.

EVOSET is the world leader in tool presetting, measuring and shrinking.

We combine productivity with absolute user-friendliness and offer tailor-made solutions for individual project requirements, through to complete solutions in the area of tool management and connection to all manufacturing processes.

QUALITY AND RESPONSIBILITY

EVOSET stands for world-class «MADE IN SWITZERLAND»

The success of our customers and partners demonstrates the importance of innovation and sustainable thinking, high quality implementation taking in to consideration cost efficiency and sustainability.

Our products are built to be energy-efficient and environmentally friendly.

Our technologies and methods not only benefit the environment, but they also help our customers to save money.

Our mindset is reflected in our remarkable international reputation EVO SET stands for world-class «MADE IN SWITZERLAND»

SOCIAL RESPONSIBILITY

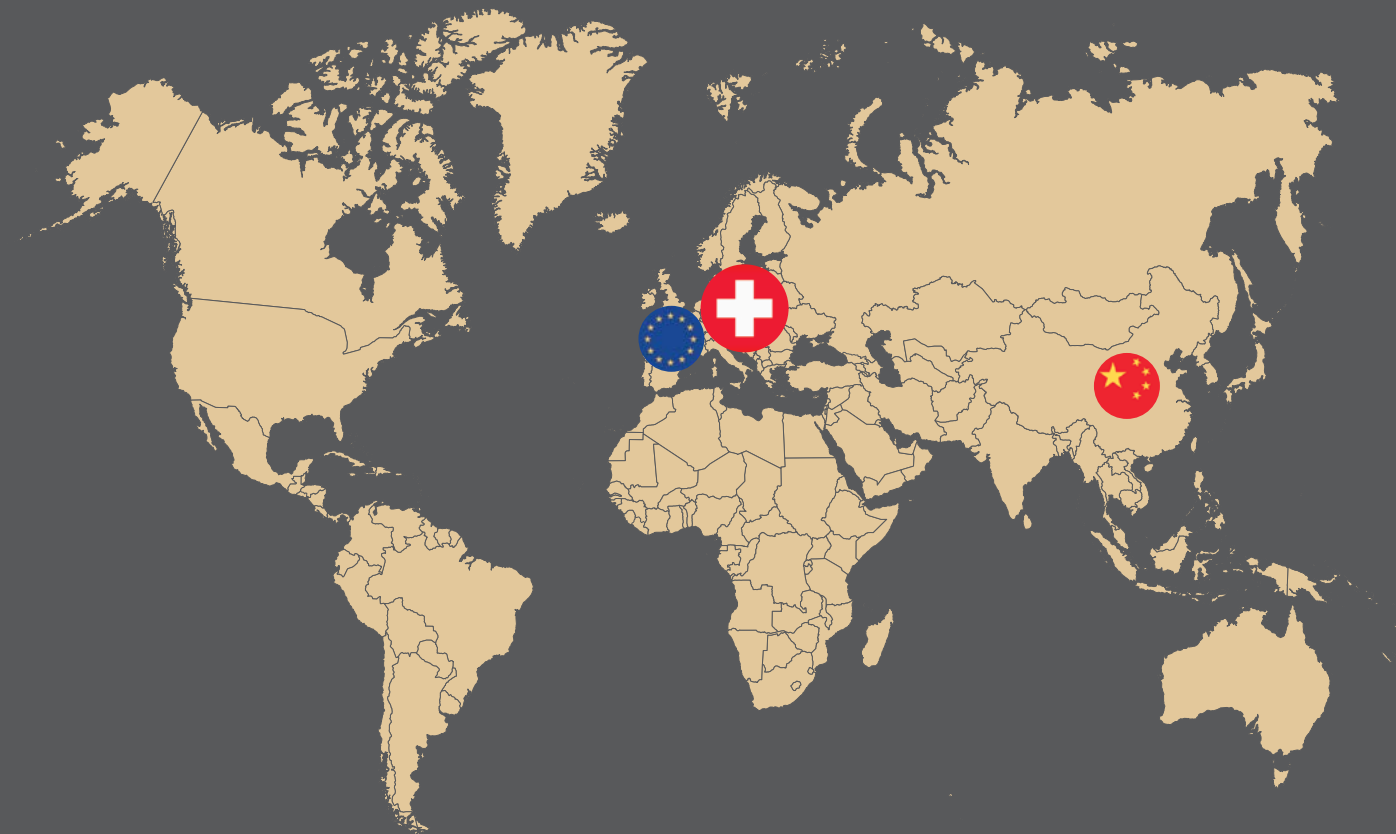
Our foundation is built on trustworthy relationships and fair dealings with employees, customers, suppliers, and the general public.

EVOSET defines social responsibility in three areas

THE PEOPLE KNOWLEDGE THE CHANGE

Our main focus is the human beings
We share our knowledge of manufacturing processes.
Together we are breaking new grounds in innovation

EVOSET stands up for responsibility, conducting business ethically and ecologically, whilst still being economical and socially responsible



Headquarter & Production facility



Technical office



Technical office

EVOSET AG

Alustrasse 18
3940 Steg

Hüttenwiesenstrasse 8
8108 Dällikon
Switzerland

Fon +41 27 922 04 50
info@evoset.com

www.evoset.com

EVOSET (EU) CTI

447 , rue des Trois Fontaines
13123 Arles, France
Fon +33 4 90 96 83 33

EVOSET (Asia) China

PWB (BEIJING) Instr. Co., Ltd.
No. 2620, Enterprise
Development service center, Xiji Town, Tongzhou District
Beijing, 101106, China
Fon +86 13911076044