TOOL MASTER 5

PWB tool presetters stand for maximum productivity with ultimate user-friendliness. The tooling quality and timely detection of damaged tools boost productivity and reduce the number of rejects. You will increase your usage time up to 25% while saving maintenance costs.

the smart way of tool presetting!

PWB

Tool presetting

The professional and compact solution for your manufacturing

YOUR BENEFITS

▶ Optimised setup times
▶ Reduced machine downtime
▶ Increased tool life
▶ Online support – directly to the device

Presetting with **PWB+** and electronic identification system

Presetting with **PWB+**

Without presetting

PROFESSIONAL EQUIPMENT

▶ Image processing with EyeRay® software
▶ All-in-one PC with 19" touchscreen monitor for easy and quick operation
▶ Motor-driven axis
▶ Joystick for infinite fine adjustment
▶ Selective axis clamping
▶ Quick focusing of the tool cutting edge
▶ CMOS digital camera with telecentric lens

▶ Spindle lock
▶ Sturdy aluminium profile
▶ Label printer
▶ High concentricity due to needle bearing
▶ High measuring repeatability
▶ Smooth recirculating ball bearing guides
▶ Tool inspection

OPTIONS

▶ Data transfer using post-processor
▶ Indexing device for rotary tools
▶ Second camera for rotary centre measurement
▶ Vacuum clamping
▶ HSK clamping
▶ Pneumatic spindle brake
▶ Tool management
▶ Measuring field offset in the X- and Z-axes possible
▶ Base

TECHNICAL DATA

Type	Motorised axes for large tools
Measuring range Standard (ø mm / l mm) Max. (ø mm / L mm)	400 / 0 .... 600 1000 / 90 1000
Axis fixation	Pneumatisch motorisiert
Fine adjustment	Handwheel per axis
Tool mounting	Needle bearings or KV spindle with rotation clamp / vacuum feeder and indexing
Measuring procedure	Image processing with **EyeRay®** Hawk or Buzzard
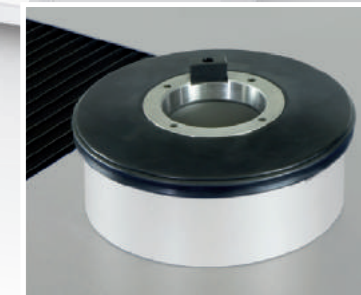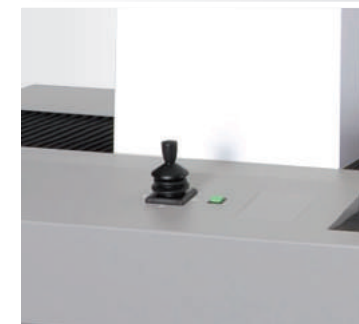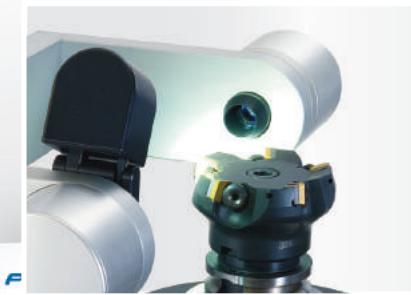
SOFTWARE

EyeRay®

The software for practical application.

All functions of the software can be operated through six basic icons. The operator works in a single screen and handles the system after a short training course safely and quickly using all functions. Favourite fields can be created individually by the customer.

	VERSIONS	
⊞ MEASURING METHODS	Hawk	Buzzard
Maximum method	X	X
Presetting method	X	X
Total image method	X	X
Multi-cutting edge method	X	X
Incident light method with single LED	X	X
Incident light method with ring light	O	O
Fixed-axis method	X	X
Centre method	X	X
Preset theoretical angle and radius	X	X
Point measurement	O	X
Centre height measurement with camera CHC	O	O

MEASURING FUNCTIONS	Hawk	Buzzard
Basic measuring functions	X	X
Advanced measuring functions	–	X
User-created measuring functions	–	X
Measuring window	X	X
Special measuring functions	O	O

⚙ BASIC SETTINGS	Hawk	Buzzard
Illumination setting	X	X
Camera parallelism	X	X
Pixel size	X	X
Axis parallelism	X	X
Absolute zero	X	X
Parameters	X	X

🖶 PRINT	Hawk	Buzzard
Label print format 1	X	X
Label print format 2	–	O
Print tool list	X	X
Print measuring report	–	O

▤ DATABASE	Hawk	Buzzard
Reference point management	X	X
Basic tool management	–	X
Full tool management	–	O
Backup and restore	X	X

⇄ DATA TRANSFER	Hawk	Buzzard
Save /open tool list	–	X
Data output to file (post-processor)	O	O
Data output to a storage medium (e.g. Baluff)	O	O
Export to Excel	–	O

„X" → Standard   „O" → Optional   „–" → Not available

TipRay

This application is designed specifically for projector units and easy to use.

► Unlimited reference point management

► Printing the values

► Creating a list of measurements (setup sheet)

► Basic absolute zero setting

► Parallelism compensation
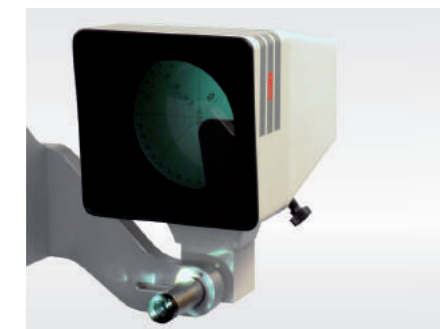
DATA TRANSFER / DATA CONNECTION

If the **TOOL MASTER** is connected directly with the machining centre, the tool data can be transferred online to the machine control. This will gain you more machine capacity and safety by excluding incorrect manipulations. The user can concentrate fully on the smooth operation of the CNC machines and is not distracted by complex data input.
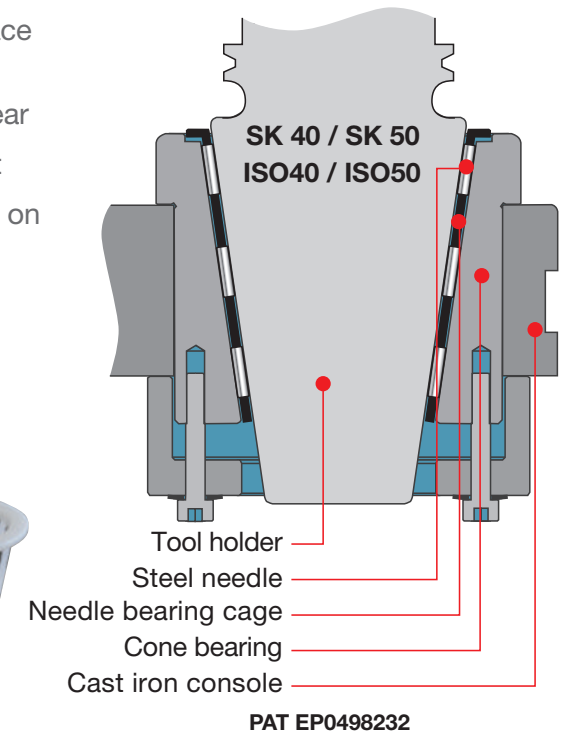
EyeRay® is prepared for the management of post-processors and can communicate with data carriers on the tool holders. Use of this option is very easy and ensures error-free and convenient transfer of measurement and tool data.

On data carrier systems, data is written to a chip which is read by the respective systems on the CNC machine and on the **TOOL MASTER** without contact.
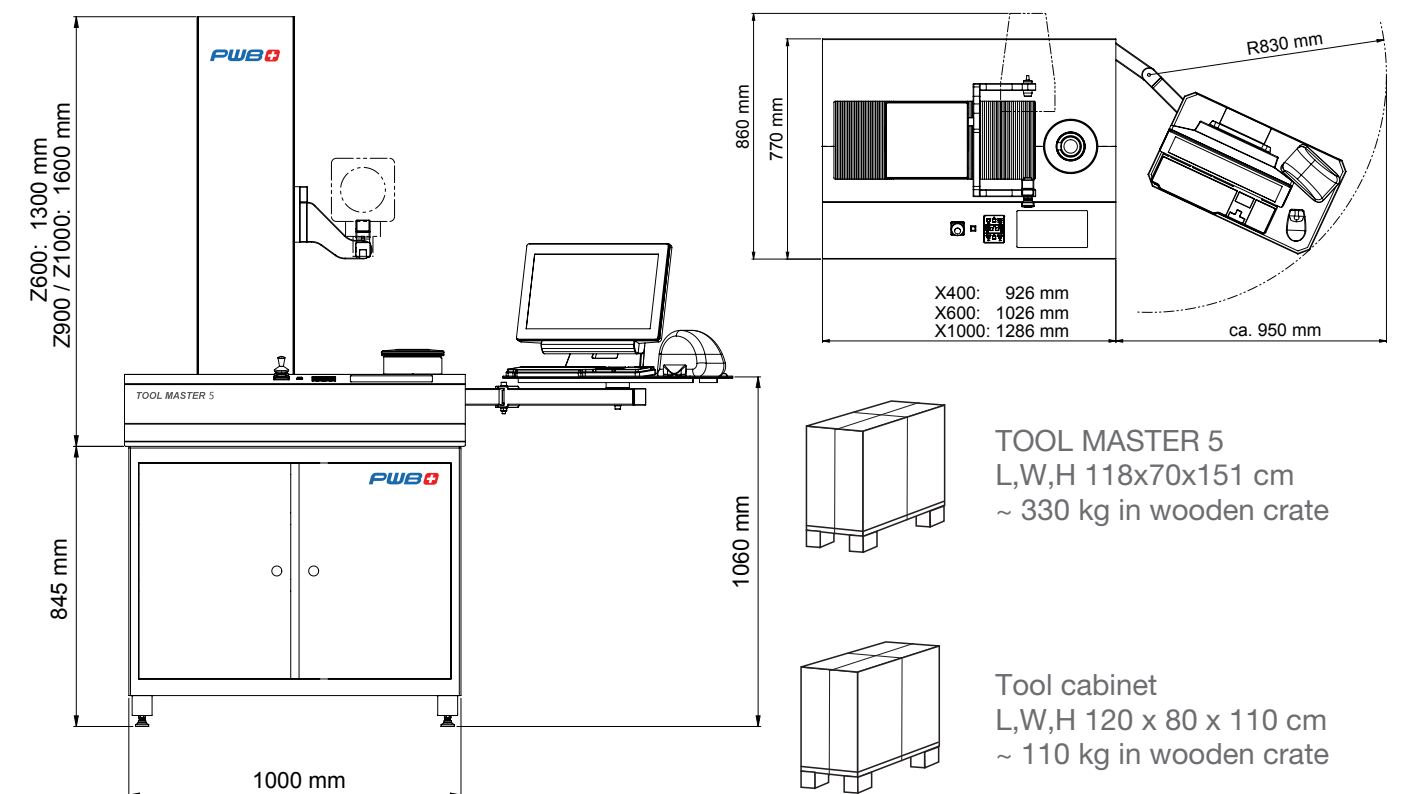
CAD   CAM   SERVER

Share_File_Network

DNC

Share_File_DNC

PWB NEEDLE BEARING FOR HIGHEST REPEATABILITY

► Protection against damage of the ground cone by surface errors of the tool

► Lower surface pressure than ball bearings, thus less wear

► Higher centring forces than when using surface contact

► Oil and dirt remain in the cavities and have no influence on the measuring accuracy

► Integrated edge protection when changing tools

► Easy to clean

► No maintenance costs

SK 40 / SK 50
ISO40 / ISO50

Tool holder
Steel needle
Needle bearing cage
Cone bearing
Cast iron console

PAT EP0498232

EasyPack

Z600: 1300 mm
Z900 / Z1000: 1600 mm

845 mm

1000 mm

860 mm
770 mm

R830 mm

X400:   926 mm
X600:   1026 mm
X1000: 1286 mm

ca. 950 mm

1060 mm

TOOL MASTER 5
L,W,H 118x70x151 cm
~ 330 kg in wooden crate

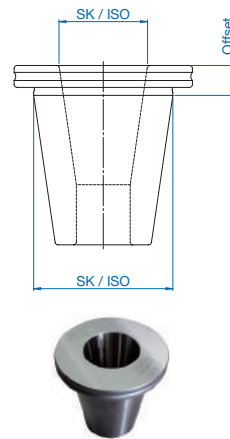Tool cabinet
L,W,H 120 x 80 x 110 cm
~ 110 kg in wooden crate

ACCESSORIES

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
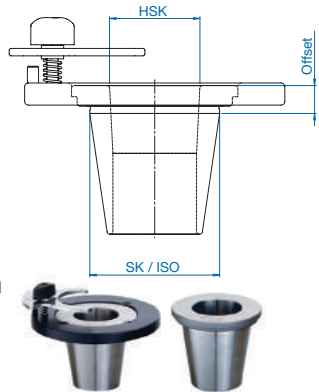
Offset value (Z)			
Internal shape	External shape		
	SK50 / ISO50	SK40 / ISO40	SK60 / ISO60
SK10	30 mm	30 mm	-
SK15	30 mm	30 mm	-
SK20	15 mm	15 mm	-
SK25	15 mm	15 mm	-
SK30	15 mm	15 mm	-
SK35	15 mm	15 mm	-
SK40	15 mm	15 mm	20 mm
SK45	15 mm	15 mm	-
SK50	40 mm	40 mm	20 mm

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

Offset value (Z)		
Internal shape	External shape	
	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

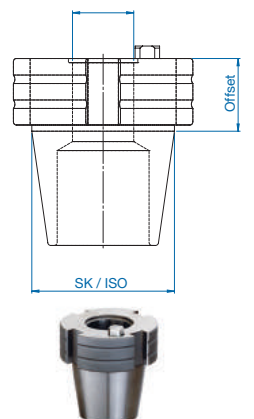► Clearance provided in the reduction for O-ring of the VDI shank
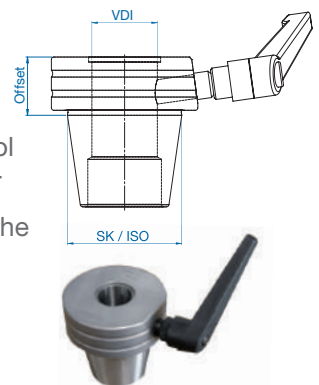
Offset value (Z)		
Internal shape	External shape	
	SK50 / ISO50	SK40 / ISO40
VDI16	50 mm	50 mm
VDI20	35 mm	35 mm
VDI25	35 mm	35 mm
VDI30	35 mm	35 mm
VDI40	35 mm	70 mm
VDI50	35 mm	90 mm
VDI60	100 mm	-

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

Offset value (Z)		
Internal shape	External shape	
	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'

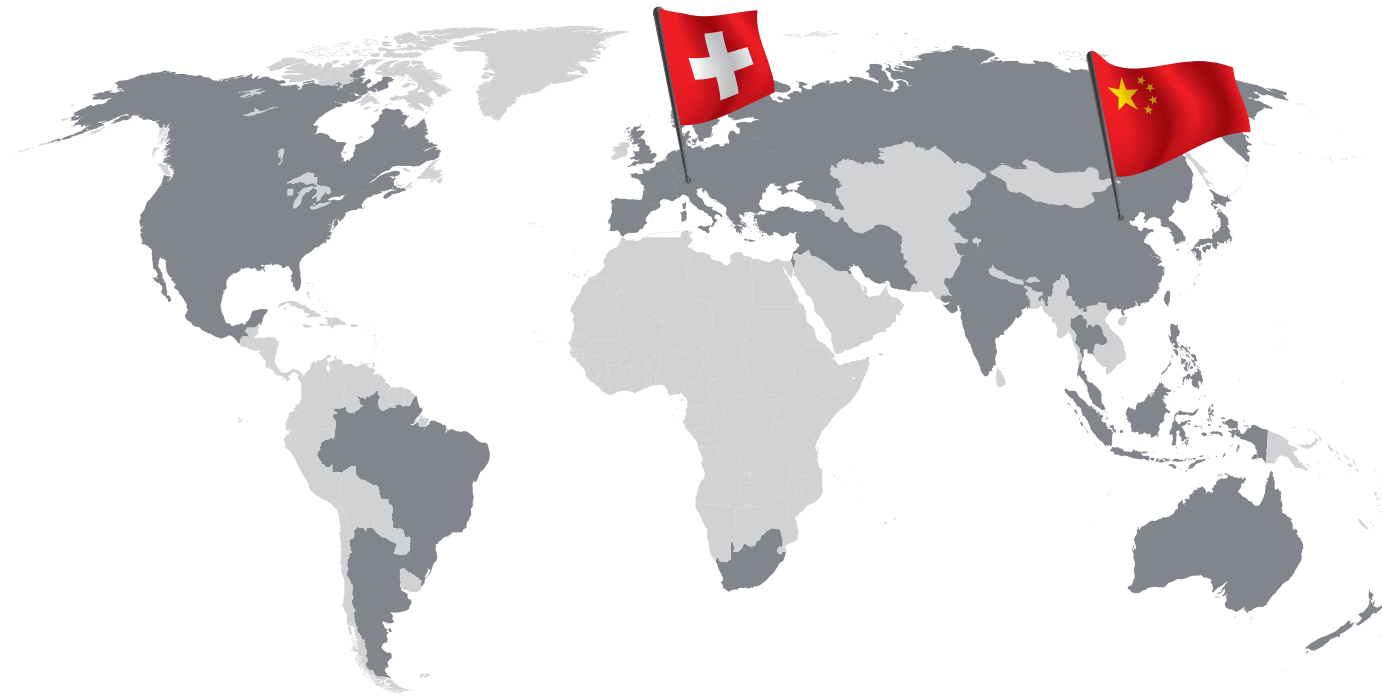► Capto tool holder is centred using the 3 highest points of the polygon in the reduction, fixed with clamping claw
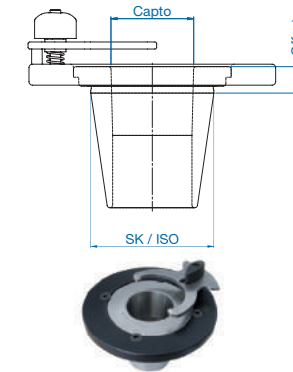
Offset value (Z)		
Internal shape	External shape	
	SK50 / ISO50	SK40 / ISO40
C3	15 mm	-
C4	15 mm	-
C5	15 mm	-
C6	15 mm	-
C8	52 mm	-
C10	80 mm	-

Other products

TOOL MASTER Lite

TOOL MASTER Quadra

TOOL MASTER Octa2

TOOL BOY

TOOL BOY Lite

LOCATIONS AND SALES PARTNERS WORLDWIDE

PWB is the brand name for presetters that are designed and manufactured in Brig at the foot of the world-famous Matterhorn mountain since 1998.

PWB-branded products can be found in production facilities all over the world.

The products focus on optimised implementation of individual customer needs. Part of a strong engineering group, Evoset AG offers intelligent, complementary solutions with a great price-performance ratio. This allows companies with machinery to improve the utilisation of their capital-intensive CNC machines and to increase their productivity on average by 25% per unit. As a production industry partner, Evoset AG continually develops new devices and systems in order to further optimise industrial processes.

In-house developments of measuring units, software, assembly, and an engineering staff ensure required know-how and success for your investments.

evoset

DISTRIBUTOR