



www.EZset.info



Technical Description

EZset Tool presetters...

- easy
- precise
- profitable

TD-Version 6.0/2006-08-03

Technical Description

EZset400 ■ EZset600 tool presetters

EZset400 – base machine

Order no: EZSET400C1

- Max. tool diameter X = 400 mm / 15.75"
- Max. tool length Z = 400 mm / 15.75"
- Pneumatic axis clamping for X and Z axis
- Bellow cover to protect the X axis
- Base-integrated cover for protection of the Z-axis
- Keypad for ergonomic and reliable activation of power-activated functions of the tool holder spindle (spindle brake and indexing)
- Heidenhain measuring system in X and Z axis
- Ergonomic one-hand control button
- Bosch pneumatic
- THK guideways



Ezset400 tool presetter

Option – EZset600 enlarged measuring range

Order no: EZSET600C1

- Max. tool diameter X = 400 mm / 15.75"
- Max. tool length Z = 600 mm / 23.62"
- Pneumatic axis clamping for X and Z axis
- Bellow cover to protect the X axis
- Base-integrated cover for protection of the Z-axis
- Keypad for ergonomic and reliable activation of power-activated functions of the tool holder spindle (spindle brake and indexing)
- Heidenhain measuring system in X and Z axis
- Ergonomic one-hand control button
- Bosch pneumatic
- THK guideways

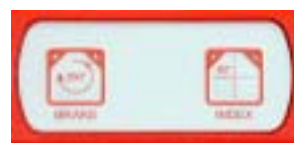


Ezset600 tool presetter

Tool holder spindle ISO 50

Order no: EZWZA1

- Power-operated tool holder spindle break 360° – ergonomic operation over keypad
- Power-operated tool holder spindle indexing 4 x 90° for the indexing of turning lathe tools – ergonomic operation over keypad
- ISO 50 tools can directly be placed in the spindle. (For other tool sizes adapters are available – see accessory)
- Integrated calibration edges
- High concentricity and measuring accuracy



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ImageController1 – vision system / camera / software

Order no: EZC1-01

Performance/data

- 6.5" diagonal TFT-LCD color monitor in ergonomic design
- Display accuracy 1 μ m
- Integrated ARM 9315 processor: Linux operating system, 200 MHZ, 32 MB working space + 16MB Flash
- CMOS camera with telecentric objective, field of vision approx. 6.5 x 6 mm at 488 x 468 pixel
- 12 integrated POWER-LEDs for incident light for edge inspection
- Option to switch between absolute, chain, differential measurement as well as counter stop function in radius and diameter
- Integrated tool management for 1000 tools
- Management for 99 adapter zero points
- USB 2.0 interface for thermo printer and memory stick

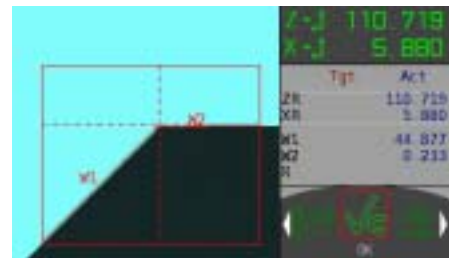
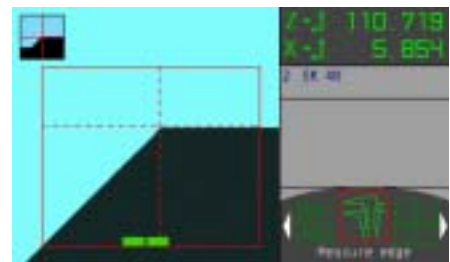


Measurement operation

- Easy intuitive user guidance – no training required
- Menu navigation over EZclick – pick = select – push = confirm
- Integrated online help for operators
- Clear demonstration of cutting tool and menu in one monitor – no cumbersome switching of monitors
- Dynamic crosshair for automatic measurement
- Switching to fix crosshairs possible = projector function, for manual measurement
- Digital focusing display (color display from red-yellow-green)
- 5 automatic measurement results: length, diameter, radius und 2 cutting edge angles
- Measurement results independent of the user = reliable and exact
- Automatic cutting edge form selection for fast and easy measurement – also for cutting edges >90°
- Real-time display of measuring values in X and Z
- Display of the cutting edge in incident light for edge inspection, quality control
- mm/inch switch
- language selection: English, German, French, Spanish, Italian, Chinese, Japanese

Note:

Chinese and Japanese are not available at the same time. Can be exchanged by update. Other languages upon inquiry.



No	Name	Note	Calibra
1	OK 50	SPINDLE	Yes
2	OK 40	ADAPTER	Yes
3	OK 62	ADAPTER	Yes
4	OK 70	ADAPTER	Yes

Technical Description

EZset400 ■ EZset600 tool presetters

ImageController1 – vision system / camera / software - continued

Order no: EZC1-01

STANDARD OUTPUT FORMAT

- As standard (as of ImageController1 version 1.1.1) the tool presetter is equipped with an RS232 interface for DNC data output according below indicated format description

Note: for control-specific data output the DNC-DataController1 is available as an option (please see DNC-DC1)

Format description:

Z-value and X-value: Indication with 3 figures after the comma. Negative values with leading "-". The measured values are always indicated as radius absolute value in mm

Angle 1 (W1) and angle 2 (W2): Indication with 2 figures after the comma. The angles are always indicated in absolute in degree

Cutting edge radius: Indication with 3 figures after the comma. The radius is always indicated in mm

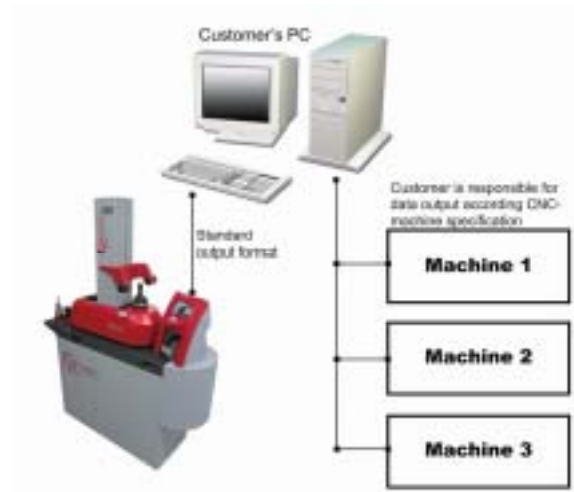
Output Example:

```
;123.456;-45.234;;;;;0.25;45.09;0.401;;;
;[Z-value];[X-value];;;;[angle1];[angle2];[edge radius];;
```

Figure explanation for output format:

Separation figure 1 piece
 [Z-value] +/- 3.3
 Separation figure 1 piece
 [X-value] +/- 3.3
 Separation figure 5 pieces
 [Angle1] +/- 3.2
 Separation figure 1 piece
 [Angle2] +/- 3.2
 Separation figure 1 piece
 [Edge radius] +/- 3.3
 Separation figure 3 pieces
 leading zeros and (+) leading signs are not transferred

As standard the EZset tool presetter is equipped with an RS232 interface to output measuring values into the network



Note:
 EZset's delivery scope does not include any network cable or other hardware that is required for physical data transfer

Technical Description

EZset400 ■ EZset600 tool presetters

Option – DNC-DataController1

Order no: DNC-DC1

- External PC software to evaluate measurement values and to save tool data and setting sheets
- **Control-specific data transfer** to the CNC-machine and tool management systems within the network, onto floppy disc or interface V.24/RS232C
- Ten (10 pieces) standard output formats (post processors) included: Siemens 840C, Siemens 840D, Mazak 640M, Traub TX8i, Okuma OSP100, Fanuc 18T/21T, Fanuc 16M/16i, Fanuc 3M, Fanuc 0T/0TC/0ITD/0ITD2, Fanuc 0MC/0MF/0MD
- Post processor output formats can be adjusted by the customer
- Delivery as CD-ROM for installation on a network computer that has to be provided by the customer. Processor requirements: PC with Pentium processor, MS Windows 95/98 or Windows NT or Windows XP, CD-ROM drive
- Connection cable of 3 m length within delivery
- Services are not included in position DNC-DC1
- Installation, training, format customization by Service Technician and will be charged according to our valid customer service rates
- Machine control must be in the position to receive data
- Available in German, English, French, Italian, Spanish, Danish



Delivery as CD-ROM for installation on the customer's PC



Note:
EZset's delivery scope does not include any network cable or other hardware that is required for physical data transfer

Option in connection with DNC-DataController1: post processors

Order no: DNC-Format

- Under order no DNC-Format post processors can be ordered that are not included in position DNC-DC1. According to our valid customer service rates. Please indicate format requirements with order
- Format adjustment for one processor included

Technical Description

EZset400 ■ EZset600 tool presetters

Accessory

Table

Order no: EZBASE

- Rigid table in ergonomic industrial design for ideal machine positioning
- Integrated handles to carry and holders for adapter tray EZBOARD and utensil tray EZSTORE



Dymo label printer

Order no: EZPRINT

- Dymo LabelWriter to output measurement values (X and Z values, radius, 2 cutting edge angles) onto labels. In addition, the tool number, T-number as well as information about adapter in use are indicated on the label
- Economic thermo printer without refilling cartridges
- 300 dpi printing quality
- Inclusive three (3 pieces) rolls of labels



Labels for printer

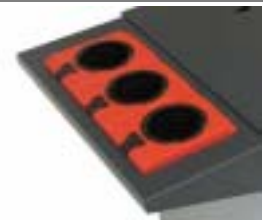
Order no: EZLABEL

- Labels for Dymo LabelWriter
- 260 labels/roll
- Label size: 89 x 36 mm

Adapter tray

Order no: EZBOARD

- Tray for ideal storage of maximum three ISO 50 adapters (delivery without adapters)
- Inclusive three (3 pieces) adapter inserts size ISO 50



Utensils tray

Order no: EZSTORE

- Tray for diverse utensils such as adjustment key and others (delivery without contents)



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Accessory

Cleaning putty

Order no: EZPUTTY

- To clean the cutting edge for most exact measurement results



Dust cover for tool presetter

Order no: EZCOVER

- Dust protection made of PVC to cover the tool presetter
- Suitable for EZset400 and EZset600
- Color: neutral transparent



Coffee mug EZbreak

Order no: EZBREAK

- Coffee mug made of isolated material to keep coffee warm. With re-closable drinking lid, contents 0.35 l, red/black



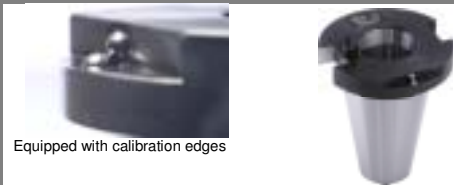
Technical Description

EZset400 ■ EZset600 tool presetters

Options

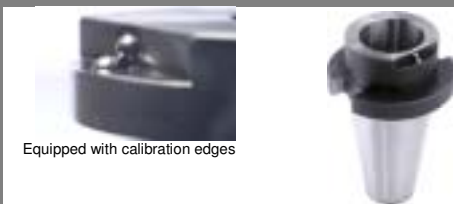
Adapter ISO 50/steep taper DIN 69871

Description	Order no	Size	Loss in Z in mm
<ul style="list-style-type: none"> Integrated calibration edges Loss in measuring range in Z-axis – see indication in table Only for measuring in the tool presetter 	EZADSK25	ISO 25	About 20
	EZADSK30	ISO 30	About 20
	EZADSK40	ISO 40	About 20
	EZADSK45	ISO 45	About 20
	EZADSK60	ISO 60	About 240



Adapter ISO 50 DIN 69871/HSK A/C/E – B/D/F

Description	Order no	Size HSK	Loss in Z in mm
<ul style="list-style-type: none"> Integrated calibration edges For tools with and without cooling Loss in measuring range in Z-axis – see indication in table Only for measuring in the tool presetter 	EZADHSK32	32-A/C/E	About 49
	EZADHSK40	40-A/C/E 50-B/D/F	About 49
	EZADHSK50	50-A/C/E	About 49
	EZADHSK63	63-A/C/E	About 49
	EZADHSK80	80-A/C/E	About 59
	EZADHSK100	100-A/C/E	About 97



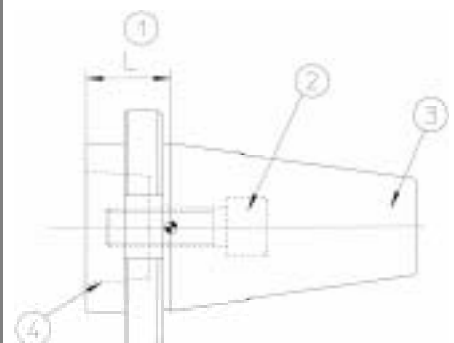
Adapter ISO 50/VDI DIN 69880

Description	Order no	Size VDI	Loss in Z in mm
<ul style="list-style-type: none"> Integrated calibration edges Loss in measuring range in Z-axis – see indication in table Only for measuring in the tool presetter 	EZADVDI16	D16 (also EMCO)	About 80
	EZADVDI20	D20	About 80
	EZADVDI25	D25	About 80
	EZADVDI30	D30	About 80
	EZADVDI40	D40	About 85
	EZADVDI50	D50	About 95
EZADVDI60	D60	About 105	



Adapter ISO 50 DIN 69872/Capto – manual clamping

Description	Order no	Size ④	① L= Loss in Z - mm
<ul style="list-style-type: none"> ① Loss in measuring range in Z-axis – see indication in table ② Manual tool clamping with clamping screw ② With axial tool clamping ③ Adapter ISO 50 DIN 69872 Without calibration edges Only for measuring in the tool presetter 	EZADC3	Capto C3	About 30
	EZADC4	Capto C4	About 30
	EZADC5	Capto C5	About 30
	EZADC6	Capto C6	About 30
	EZADC8	Capto C8	About 70




Technical Description

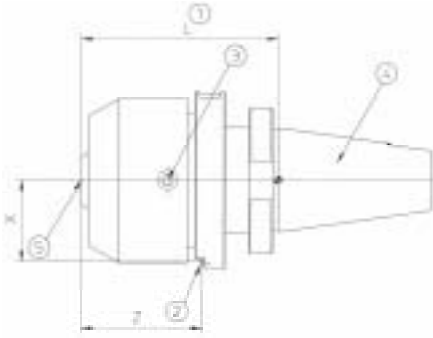
EZset400 ■ EZset600 tool presetters

Options

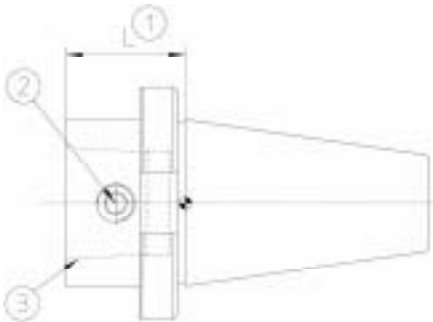
Adapter ISO 50 DIN 69872/Capto manual clamping - Excenter			
Description	Order no	Size ⑤	① L= Loss in Z - mm
<ul style="list-style-type: none"> ① Loss in measuring range in Z-axis – see indication in table ② Integrated calibration edges ③ Manual tool clamping about ¾ turn Comfortable usage since adapter must not be taken out of spindle in order to clamp tool ④ Adapter ISO 50 DIN 69872 Delivery time about 2 - 16 weeks Only for measuring in the tool presetter 	EZADC3-E	Capto C3	About 130
	EZADC4-E	Capto C4	About 140
	EZADC5-E	Capto C5	About 95
	EZADC6-E	Capto C6	About 120
	EZADC8-E	Capto C8	About 140



Equipped with calibration edges



Adapter ISO 50/UTS/KM			
Description	Order no	Size ③	① L= Loss in Z - mm
<ul style="list-style-type: none"> ① Loss in measuring range in Z-axis – see indication in table ② Manual tool clamping for KM/UTS tools Without calibration edges Only for measuring in the tool presetter *Delivery time size ISO 100 about 12 weeks 	EZADKM32	KM / UTS 32	About 60
	EZADKM40	KM / UTS 40	About 60
	EZADKM50	KM / UTS 50	About 60
	EZADKM63	KM / UTS 63	About 60
	EZADKM80	KM / UTS 80	About 60
	EZADKM100	KM / UTS 100 *	About 130



Delivery time for listed adapters (if nothing further is indicated): from stock, subject to prior sales

Further adapters upon inquiry.

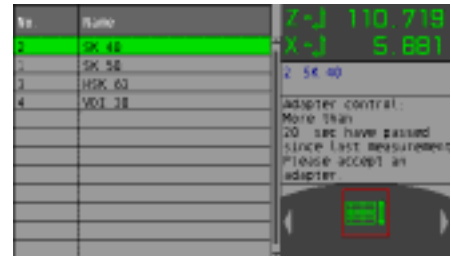
Technical Description

EZset400 ■ EZset600 tool presetters

Highlights

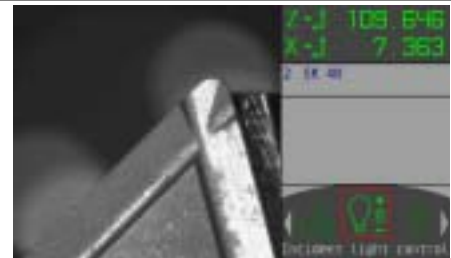
User-guided machine zero point monitoring

- Integrated security question to prevent machine crashes
- After a pre-applied time interval (option to preset time - part of software package) a question appears reminding the operator to check for correct adapter to avoid machine crashes



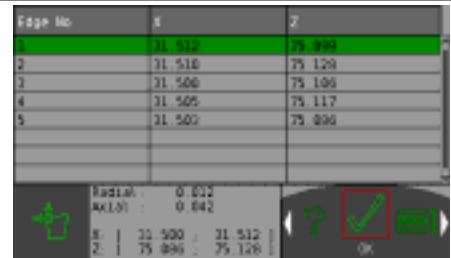
Edge inspection

- The cutting edge incident light allows for live picture of tool or insert to monitor wear and tear of the cutting edge
- User-guided light adjustment of the POWER ring light for optimum cutting edge display



Measuring program to align cutting edges of multi-bladed tools

- Measuring program for milling cutters, multi-bladed milling heads, die sinking milling cutters, and others
- To determine the smallest and largest cutting edge in X and Z
- Tolerance check and possibility to adjust the cutting edge for maximum concentricity



Measuring program concentricity at the tool shaft

- Measuring program to determine concentricity at the tool shaft of single and multi-bladed tools.



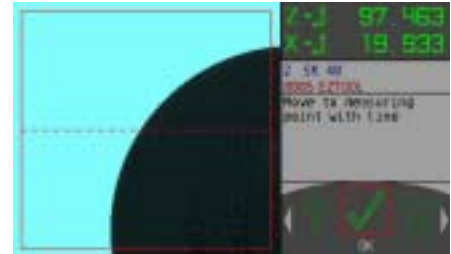
Technical Description

EZset400 ■ EZset600 tool presetters

Highlights

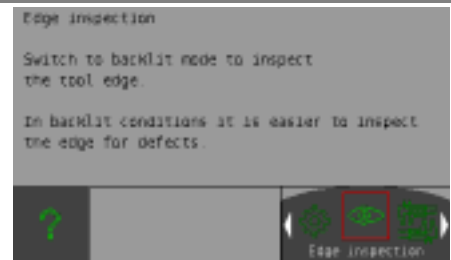
Measuring program oversize radius and angle

- Measuring program to determine oversize radii and angles at the tool edge, which exceed the field of vision of the camera



EZset user support

- In addition to the menu symbols a written function explanation appears for easy navigation
- Short instruction texts guide the user through the system e.g. "Edge inspection"
- The integrated Online Help explains every function step by step



EZset customer registration – service & support

- In order to provide future service and support for EZset tool presetters EZset has to be registered within a certain time frame after purchase. Registration is made over telephone or over the EZset website
- Customer information as well as the machine serial number are required in order to guarantee and process future updates as well as to identify the right part needed in case of repair.
- The registration provides the EZset customer a distinct advantage to clearly profit from support and service as well as online by EZset GmbH & Co. KG

Technical Description

EZset400 ■ EZset600 tool presetters

Packing standard

Order no: EZPACK

- Standard transport packing

Packing seaworthy

Order no: EZPACK-SW

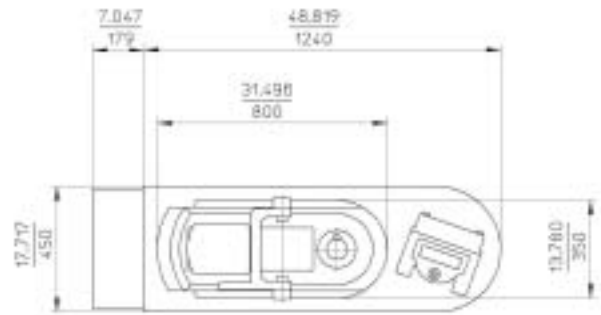
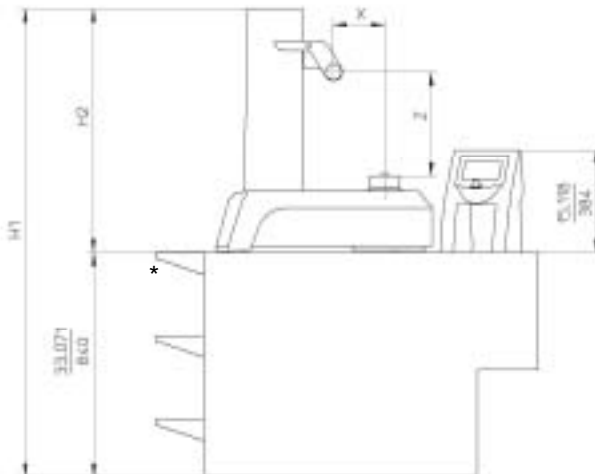
- Seaworthy packing for overseas transport
- Vacuum-packed in cardboard box

Technical data

Measuring range:

By means of use of adapters the indicated measuring range may be reduced. Please note the indications of loss in measuring range under accessory and adapters in this documentation

	EZset400		EZset600	
	mm	inch	mm	inch
Measuring range X-axis	400	15.75	400	15.75
Measuring range Z-axis	400	15.75	600	23.62
Total height H1 with table	1760	69.29	1960	77.17
Height H2 machine without table	920	36.22	1120	44.09
Weight (net)	110 kg / 243 lbs		115 kg / 254 lbs	



* Flexible trays

Indication in $\frac{\text{inch}}{\text{mm}}$

Technical Description

EZset400 ■ EZset600 tool presetters

EZset color

- RAL 3000 fire red
- RAL 7001 silver gray
- RAL 7021 black gray

Power supply

- Voltage: 100 ... 240 volt ~ ± 10 %, 50/60 Hz, protection class II
- Pneumatic: max 4 ... 6 bar (60 ...80 psi). No maintenance unit included. Inclusive pneumatic port for diameter 4 mm tube
- Machine connection IEC320
- Standard US-American power cord included with machine

Declaration of conformity

EZset tool presetters are serial devices. EZset manufactures its machines conform to the security regulations for electrical measuring devices, controls and regulatory devices as well as laboratory devices according to EN 61010 (IEC1010). CE-sign and declaration of conformity are confirmed. All EZset tool presetters correspond to the guidelines of the European Council 89/336/EEC and 73/23/EEC with all its changes. Other regulations and norms do not apply.

An electric security test according 61010 (IEC 1010) is made for every EZset tool presetter.

Scope of delivery EZset400 and EZset600

- 1 piece of base machine EZset400 or EZset600
- 1 piece tool holder spindle ISO 50
- 1 piece ImageController1 vision system
- 1 piece EZBASE table
- 1 piece EZPRINT printer inclusive three (3) rolls of labels
- 1 piece EZBOARD adapter tray inclusive three (3) adapter inserts ISO 50
- 1 piece EZSTORE utensils tray
- 1 piece EZPUTTY cleaning putty
- 1 piece EZBREAK coffee mug
- 1 piece EZPACK packing standard
- 1 piece operating manual
- 1 piece US-American power cord included
- Acceptance documents
- 12 months warranty on parts

Options:

- Adapters
- DNC-DataController1
- Post processors
- EZCOVER dust cover

For pricing information please refer to our quotation.

Terms of sale

- Our general conditions of sale and customer service rates are valid as well as conditions as indicated in the EZset quotation
- Subject to technical changes



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