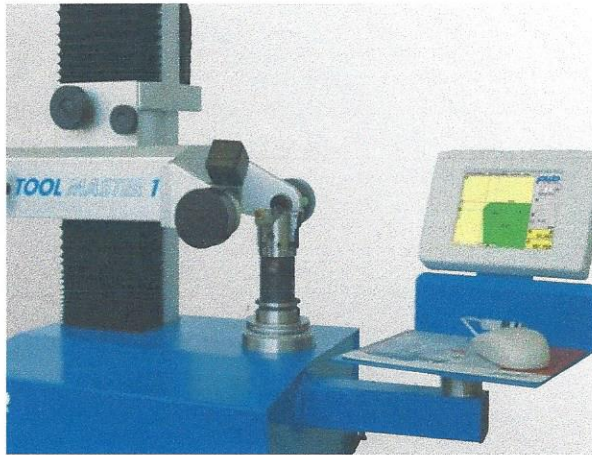


# TM10-TCAM2 Image Processing



TM10-TCAM2 is the entry model for tool measuring with electronic image processing. It is the intelligent combination of a digital CMOS-camera and evaluation electronics with a 6.4" TFT-colour monitor.

TM10-TCAM2 can be used to align and position profile contours in X- and Z-axis as well as for manual measuring. Mouse operation makes it very easy to use. No time consuming operator training is necessary.

The system possesses a high degree of built-in intelligence. Its automatic contour recognition recommends the most suitable measuring method to the operator and automatically displays the measuring lines and coordinates of the tip on the monitor.

Tool tip angles and radii are automatically displayed. An alpha-numerical keypad can be displayed on the screen and used by mouse click. As an option, a standard keyboard can be connected.

RS-232 interface for program updates and the documentation of measuring results in a computer network. As an option it is possible to transfer machine tool program compatible measuring data to a CNC control via RS-232 interface.

TM10-TCAM2 provides the operator with all data required for direct tool presetting. A PC is not required.

#### Measuring methods:

- fixed and floating axes
- reticule - centre

#### Measuring process:

- automatic recognition of measuring process by contour evaluation
- alternative manual determination of measuring process by mouse click



- ① Measuring function with floating reticule
- ② Manual selection of desired measuring process
- ③ Determination of measuring window
- ④ Management of adapter zero points
- ⑤ Frontal illumination for tip inspection (optional)
- ⑥ Control compatible data output (PP) (optional)

#### Measuring functions:

- line/angle/radius

#### Display and operating features:

- Adjusting aid for both axes
- Variable evaluation area, definable by mouse click
- Switchable live image, colour or black/white (tip inspection)
- Display hardcopy via RS-232 for documentation of measuring result
- Glass scales AcuRite 0.001 mm
- Memory for 99 adapter zero points
- Memory for 500 tools, 12 digits, alpha-numerical
- Internal tool library
- Absolute, difference and incremental measurements
- Switchable radius and diameter
- Switchable mm-inch
- Hold function
- Parallelitism and linear compensation
- Password protection

#### Measurement output:

- Label and tool list via USB and RS-232
- Data output for 1 machine tool (optional)

#### Dialogue selection:

- English/German/French/Spanish/Italian (other languages on request)



# Technical Data

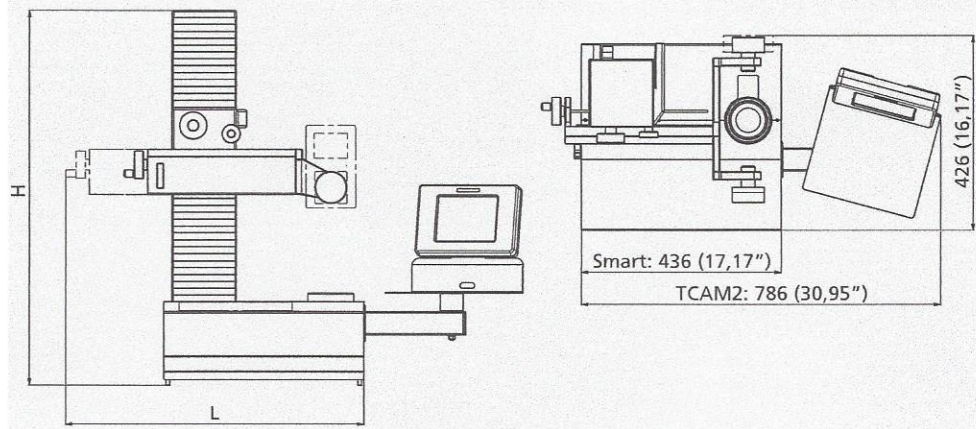
## TM10-SMART and TCAM2

Bezeichnung	Measuring range		L	H	Weight kg / lbs
	X-Axis (Ø)	Z-Axis (L)			
Toolmaster 10-SMART	250 (9,84")	42-360 (1,66"-14,17")	650 (25,6")	814 (32,05")	70 / 154
	250 (9,84")	82-500 (3,23"-19,68")	650 (25,6")	977 (38,46")	75 / 165
Toolmaster 10-TCAM2	250 (9,84")	42-360 (1,66"-14,17")	650 (25,6")	814 (32,05")	80 / 176
	250 (9,84")	82-500 (3,23"-19,68")	650 (25,6")	977 (38,46")	85 / 187

Tool adapter available for ISO 40 or ISO 50

All dimensions in mm (inch)

## Dimensions



## Power Supply

Electrics: 90-264 V AC / 50-60 cycles

Compressed air: non required

## Extent of Supply

- Basic unit, ready for operation
- Tool spindle ISO40 or ISO50
- Connecting cable
- Operator's manual
- Test certificate
- Guarantee certificate
- Dust cover
- One-way packaging