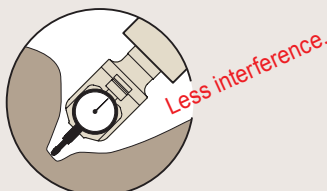
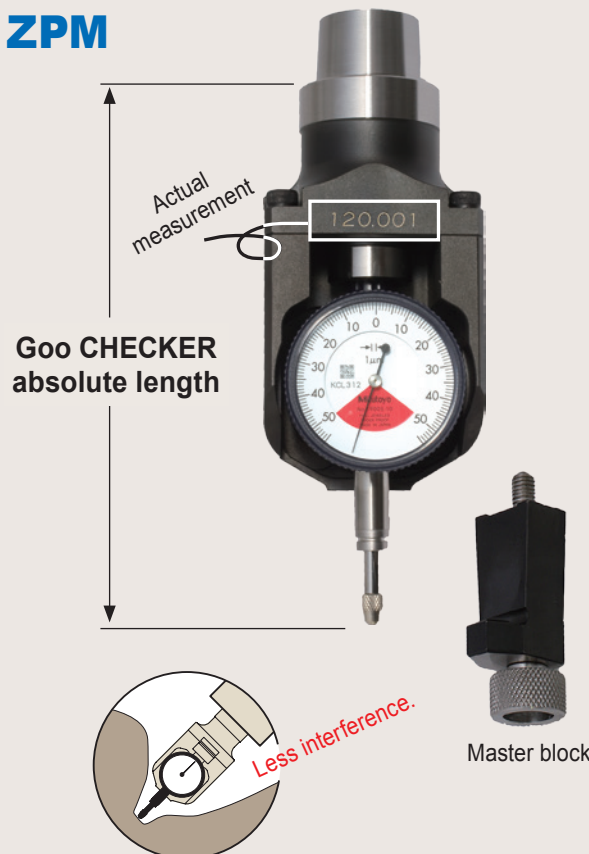


## Easy and accurate Z-axis origin setting!

It is easy to accurately set the Z-axis origin of the machining center, the reference surface of work-piece, and the jig fixture.



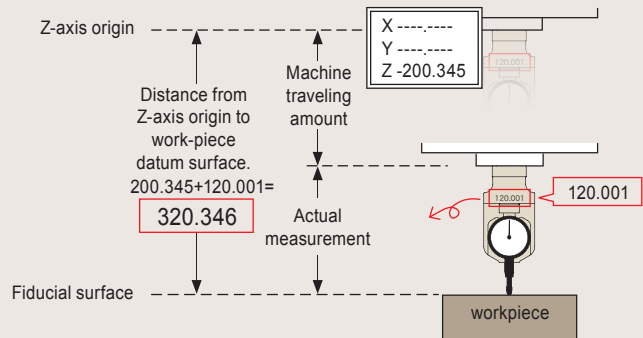
**ZPM**



Available for using 5-axis machine.

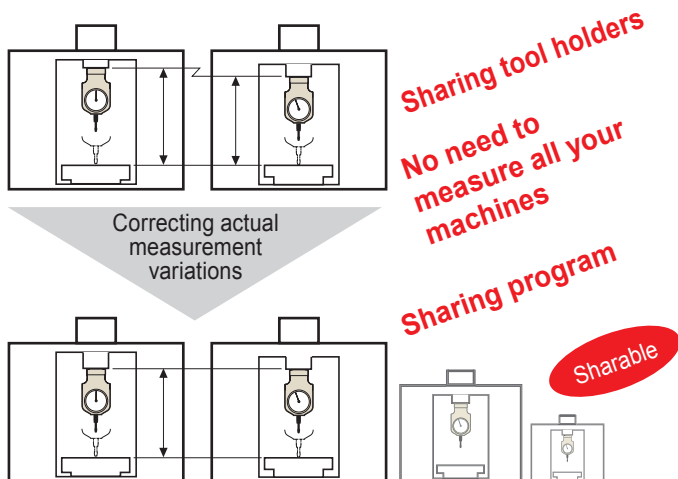
### Measuring steps are easy.

Accurate measuring of the distance from the Z-axis origin to the reference surface of the work-piece and jig fixture is easy.



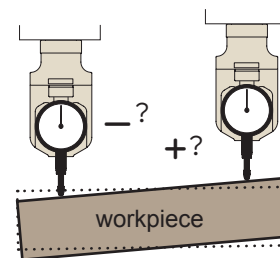
## Sharable Z-axis origin for several machining centers

After measuring the distance from the Z-axis origin to the table surface of each machining center and correcting any variations, multiple machining centers can share the tool holders and programming.



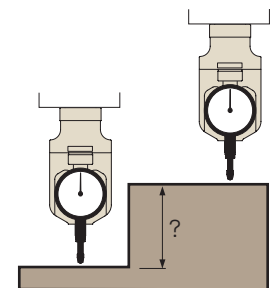
## Flatness check

Precise measurement for flatness.



## Step measurement

Measurement for steps on the work-piece.



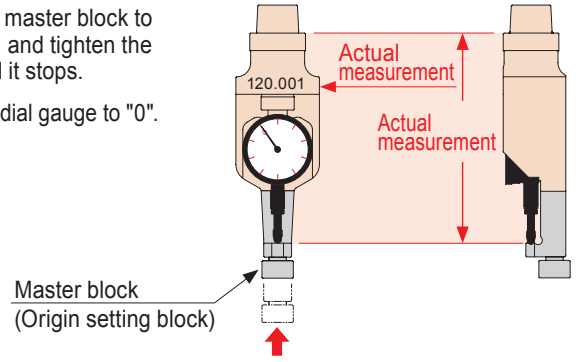
# Goo Checker ZPM type (ZPM)

Thanks to its compact design, interference is reduced, making it the optimum holder for compact machining centers.



## Easy confirmation of actual value (self-check function)

1. Attach the master block to the holder, and tighten the screw until it stops.
2. Adjust the dial gauge to "0".



CODE	Fig.	L	L1	Kg
<b>BT30-ZPM-130</b>	1	130	100	1.0
-165		165	135	1.2
<b>BT40-ZPM-150</b>	2	150	120	1.3
-210		210	180	1.5
<b>BT50-ZPM-180</b>	2	180	150	2.9
-240		240	210	4.1
<b>A63 -ZPM-150</b>	3	150	120	1.2
-210		210	180	1.5
<b>A100-ZPM-180</b>	3	180	150	2.5
-240		240	210	3.8
<b>E32 -ZPM-120</b>	3	120	90	0.7
-165		165	135	1.0
<b>E40 -ZPM-120</b>	3	120	90	0.8
-180		180	150	1.1
<b>E50 -ZPM-150</b>	3	150	120	1.0
-195		195	165	1.3
<b>F63 -ZPM-150</b>	3	150	120	1.1
-210		210	180	1.3
<b>DN40-ZPM-150</b>	2	150	120	1.3
<b>DN50-ZPM-180</b>	2	180	150	2.9
<b>CT40-ZPM-150</b>	2	150	120	1.3
<b>CT50-ZPM-240</b>	2	240	210	4.1

### Option

- Retention knob (BT/DIN/CAT.) → P.64

### Std. Access.

- Master block
- Indicator, 1/ 1000 reading

### Caution

- A.T.C is not available. (except for BT30)

Fig. 1

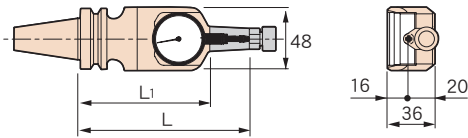


Fig. 2

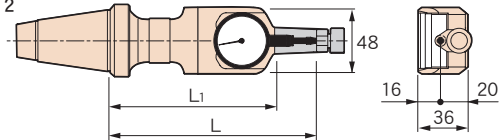
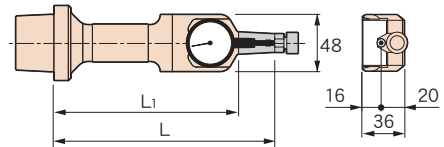
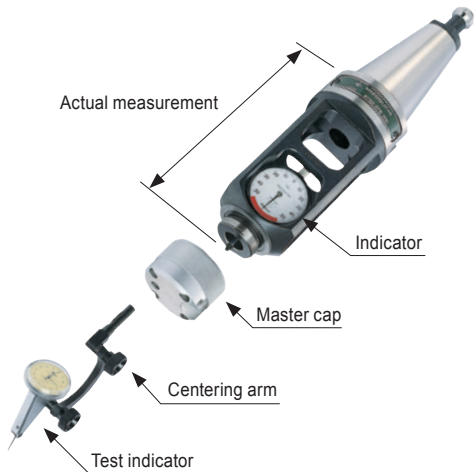


Fig. 3

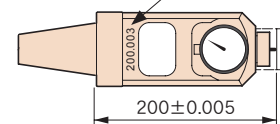
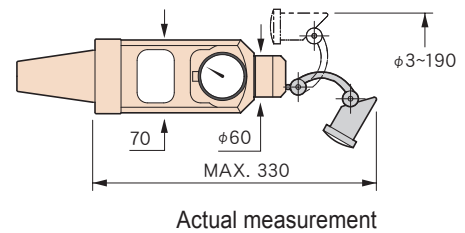


# Goo Checker ZPB type (ZPB)

High reliability due to its machined solid structure.



Usage example for test indicator



CODE	Kg
<b>BT40-ZPB-200</b>	3.3
<b>BT50-ZPB-200</b>	5.2

### Option

- Retention knob → P.64

### Std. Access.

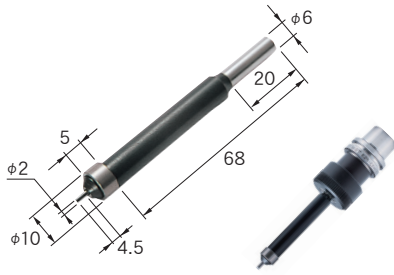
- Indicator, 1/ 1000 reading
- Test Indicator, 2/ 1000 reading
- Centering arm
- Master cap
- Wooden box

# Centering bar

To identify workpiece datum position

CODE

ST6-CEB102

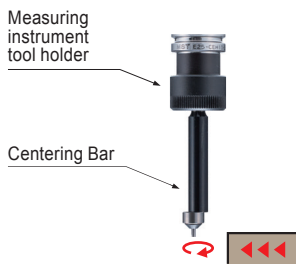


## Usage

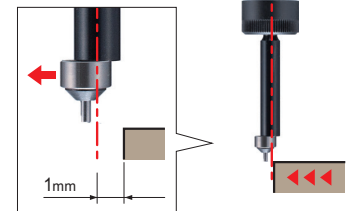
① Rotate a spindle in low-speed rotation (450~600 $\text{min}^{-1}$ )

② Contact the stylus carefully with a work-piece by micro feeding until it doesn't have a swing.

③ You can find the alignment between the machine spindle center and the work-piece edge face after the stylus moves another 1mm (the radius of dia. 2mm stylus).



Rapid eccentricity



## Measuring instrument tool holder (HSK-E25)

Use when centering a workpiece.

The spring collet (C10-6-P) and the centering bar (ST6-CEB102) are required and sold separately. Tighten nuts by hand.



CODE

E25-CEH10-37

### Option

- Centering bar
- Spring collet (C10-6-P) → P.38

### Caution

- Not usable for machining.