

# TEST BAR CHECKMATE

For machine spindle maintenance

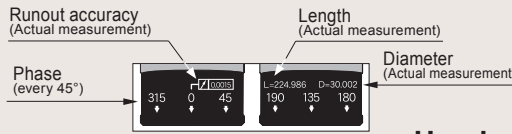
## The maintaining machine spindle run-out accuracy allows superior machining quality. Maximizes tool holder performance!

Periodically checking the run-out accuracy will result in superior machining.

- ▷ Light-weight (20% lighter), hollow design makes it easy to use.
- ▷ The actual measurement values are marked on the body.
- ▷ Ideal for setting Z axis datum.
- ▷ Reasonable price.

### You can recognize the exact run-out accuracy and the highest run-out of the spindle.

You can check the spindle condition more precisely using the run-out value and position marked on the body.



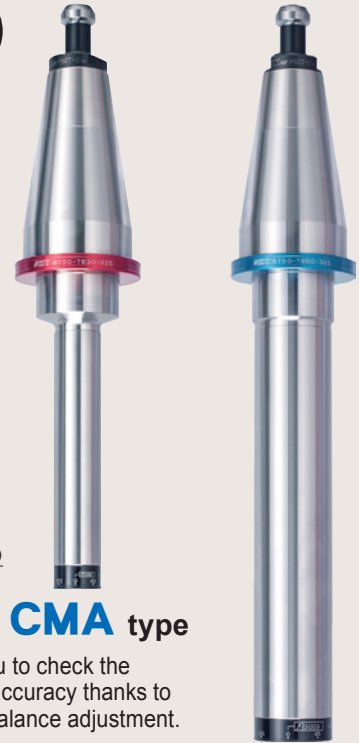
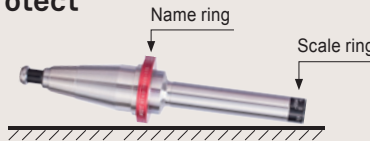
### It can be installed into the spindle in every phase.

There is no drive-key groove, so measurements can be made without worrying about the phase.



### The name ring and scale ring protect it from scratches and dents.

The taper area and straight area do not touch the table surface even if they are placed horizontally.



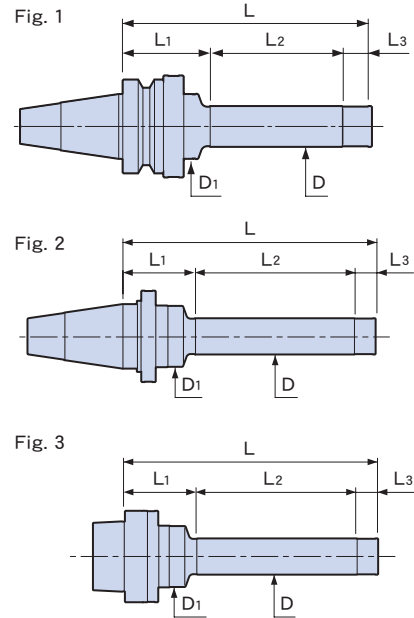
### Handy CMA type

Allows you to check the dynamic accuracy thanks to optional balance adjustment.

### Full-fledged CMB type

Z-axis deflection and spindle travel accuracy can be measured.

	CODE	Fig.	φD	φD1	L	L1	L2	L3	Kg
BT / DIN / CAT.	NT30 -CMA20-125	1	20	32	125	45	65	15	0.7
	NT40 -CMA25-175	2	25	42	175	50	110		1.3
	NT50 -CMA30-225		30	53	225	65	145		3.5
	NT30 -CMB30-175	1	30	32	175	45	115	15	1.0
	NT40 -CMB40-325	2	40	42	325		265		2.8
HSK-A / -E	NT50 -CMB50-325		50	53		60	250		5.7
	HSK32 -CMA20-125	3	20	26	125	35	75	15	0.4
	HSK40 -CMA20-125			32		45	65		0.5
	HSK50 -CMA25-175		25	42	175	50	110		1.0
	HSK63 -CMA25-175								1.2
	HSK80 -CMA30-225		30	53	225	65	145		2.2
	HSK100-CMA30-225								3.0
	HSK125-CMA30-225								4.1
	HSK32 -CMB25-175	3	25	26	175	35	125	15	0.7
	HSK40 -CMB30-175		30	32		40	120		0.9
	HSK50 -CMB40-225		40	42	225	45	165		1.8
	HSK63 -CMB40-325				325		265		2.7
	HSK80 -CMB50-325		50	53		60	250		4.4
	HSK100-CMB50-325								5.2
	HSK125-CMB50-325								6.3
HSK-F	HSK63F-CMA25-175	3	25	42	175	50	110	15	1.2
	HSK80F-CMA30-225		30	53	225	65	145		2.3
	HSK63F-CMB40-325	3	40	42	325	45	265	15	2.7
	HSK80F-CMB50-325		50	53		60	250		4.5



### Exclusive retention knob

CODE	Shank
P-576	CAT.40
-575	CAT.50
-578	DIN40
-577	DIN50

- Option
  - Coolant duct (HSK-A)
  - Retention knob (BT)
  - Exclusive retention knob (CAT. / DIN)
  - Balance adjustment (only for CMA type) less than G2.5 / 30000min<sup>-1</sup>
    - ※ Please order by adding "BL" to the end of the code. (Ex.: HSK63-CMA25-175 BL)
- Std. Access.
  - Accuracy inspection sheet

- Note
  - NT type is available for BT/CAT. and DIN spindle by changing the retention knob.
  - HSK type is available for both HSK-A and HSK-E spindles.
  - HSK-F type is available only for HSK-F spindle.
  - A special design retention knob is required for CAT./DIN spindle. A market standard retention knob for ANSI/DIN/ISO is not available. Contact us for the details.
  - Use a market standard retention knob for the BT spindle.
  - NT30 type can be installed into a spindle at 0° and 180°.
- Caution
  - A.T.C is not available. (except for NT30)

The sub-zero treatment prevents secular change.