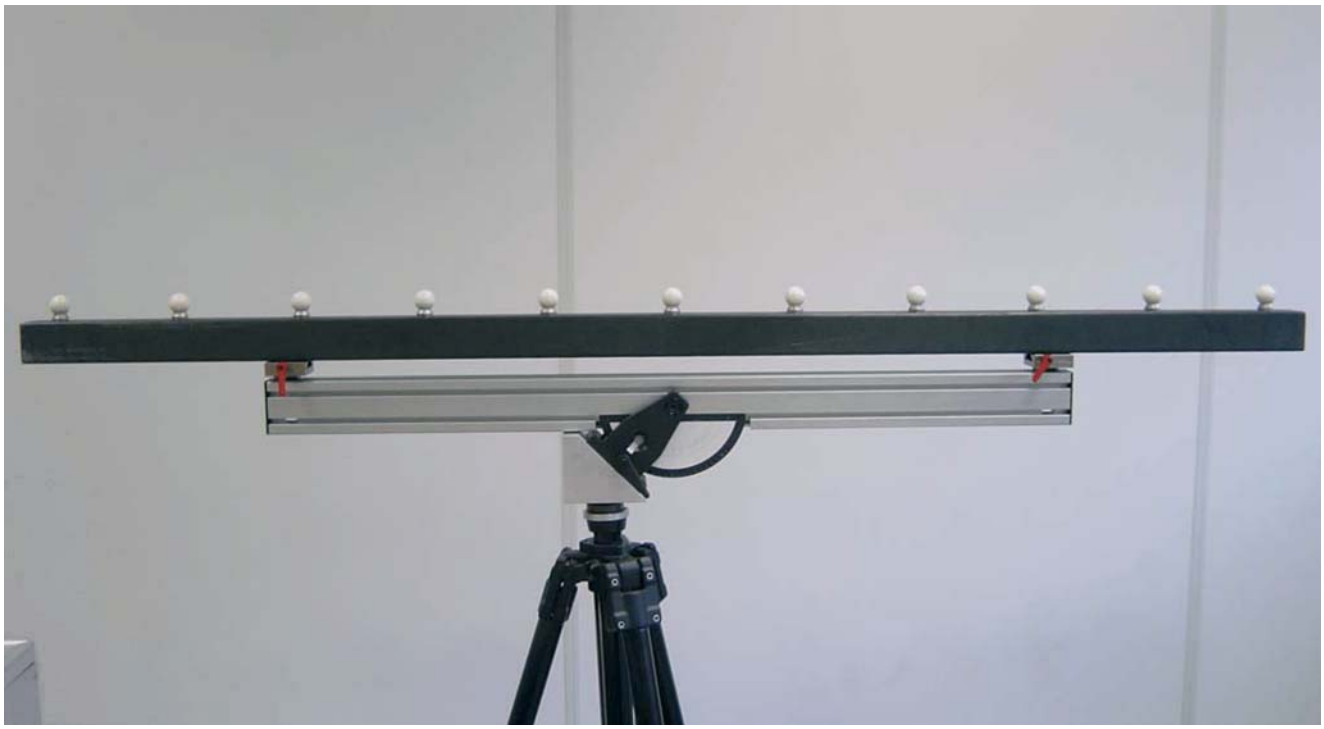
KOBA
sphere beam

non-demountable sphere beam for monitoring the accuracy of medium-sized coordinate measuring machines



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- Ball Bar
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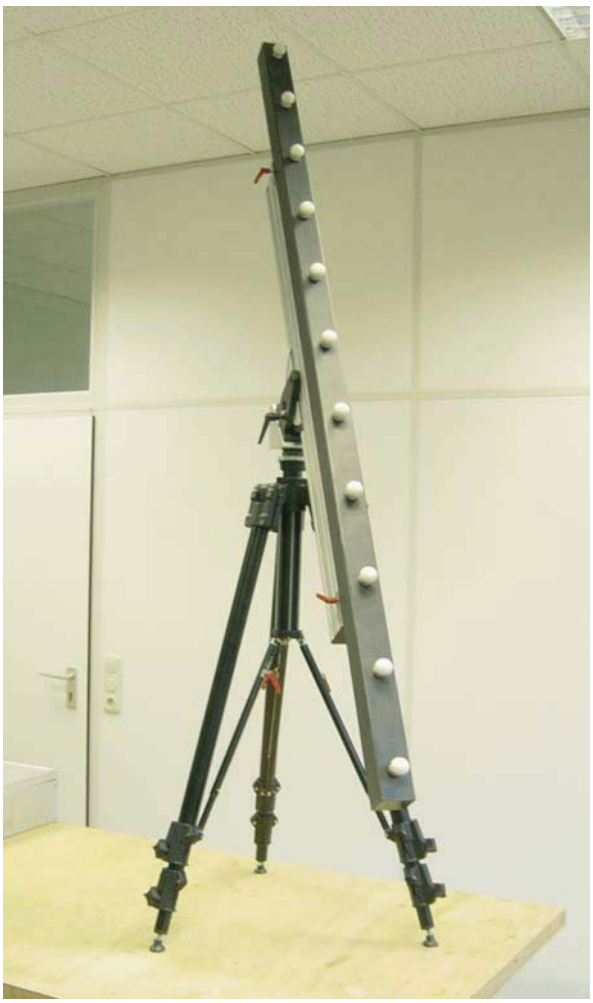
Product description:



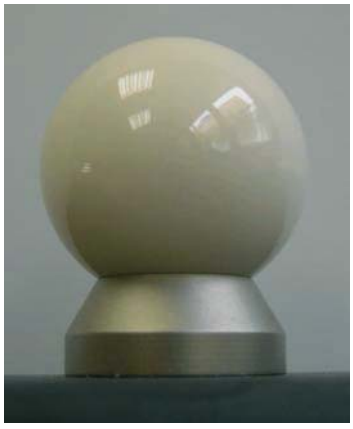
The **KOBA *sphere beam*** is a non-demountable ball bar for monitoring and calibration of medium-sized CMM.
Ceramic spheres are the probing elements and represent the long-term stable measuring length. They are fixed in a specially designed support.
Available nominal lengths are from 1500 up to 2500 mm with divisions and sphere diameters as per customer's requirements.

Positioning of the **KOBA *sphere beam*** in a broad range within the volume of the CMM can either be made by using two light tripods in CFC or by a torsion-proof base on which a swivel arm is mounted.

Constructional features:

The carrying body consists of an ultra high modular CFC-integral profile of highest possible fibre volume. This CFC-profile is extremely rigid and stable in size due to the constructional conditions and the applied product engineering. The carrying body is equipped with a water-vapour-proof coating in order to avoid changes in size subject to humidity.

There are two options for the positioning in the volume of the CMM.
Using two light CFK-tripods is the option where best possible portability at lowest weight is achieved. With the tripod solution the sphere beam can be aligned horizontally up to 60° with reference to the horizontal position. As an alternative the mounting can be done by using a torision and bending-proof base together with a swivel arm with angular adjustment. This option covers a swivel range of 90°, i.e. the alignment of the measuring line can be varied from horizontal to vertical position. Thus also axially parallel measurements can be carried through without problem.



The ceramic probing spheres of ∅ 30 mm is standard (other diameters are possible) are fixed mechanically in a tapered seating such that adhesive cannot influence the sphere position in a negative way.

Technical details:

Dimensional range:	1500 mm up to 2500 mm
Divisions:	as of 100 mm (customized also possible)
Carrying body:	UHM-CFC-integral-profile 60 x 60 mm Coefficient of linear thermal expansion approx. $-0{,}5 \times 10^{-6}\ K^{-1}$ Weight (depending on the probing elements) approx. 2 kgs / m
Tripods:	CFC-light tripods with swivel head (approx. 3 kg / piece)