

Mass properties measurement accuracy is highly dependent on the fixture used to support the payload on the measuring instrument.

Raptor Scientific offers its extensive experience in designing and manufacturing fixtures to suit a full range of test parts from hard-drive components weighing a few grams to spacecraft weighing 10 tons.

All of our fixtures are custom-tailored to your specifications.



KSR Series Head Form Fixtures



Head Form Fixtures

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Our KSR series machines measure mass properties relative to the instrument reference axis. In order to obtain the full inertia tensor, it is necessary to reposition the test part relative to the machine.

Our Head Form-Fixtures support the object horizontally and include a rotary table which allows turning the object about the horizontal axis to obtain two additional moment of inertia measurements and the third center of gravity measurement.



Advantages of our Head Form Fixtures

Low Weight and Inertia - Our Head Form-fixtures are designed with the lowest possible weight and moment of inertia without sacrificing rigidity.

Rotary Interface Plate - Our fixtures minimize handling of the payload by providing with a rotary interface plate that allows rotation of the payload for measurements at various angles.

Minimal Deflection - Our fixtures are designed to be extremely rigid so that they do not deflect under the weight of the payload.

High Repeatability - Our fixtures are designed to mount to our KSR and POI series of instruments in a known, highly repeatable, and well-defined orientation relative to both the instrument and the payload.