

About JCSS Gear Calibration Service

A gear is calibrated by DAT-1 that is super high precision gear reference machine located in Osaka Seimitsu Kikai Co., Ltd. Gear Measuring Center (GMC). And its calibration result is traceable to the national artifacts of the length. As a result, we maintain the calibration reliability and uncertainty as the world's highest level.

Recently, new standards of gear measurement (refer to below JIS standards) are established. In these standards, the artifacts (such as master gears) applied to inspection of the gear measuring machine are required to be traceable to the national artifacts. The JCSS gear calibration conducted by GMC fulfills these requirements.

JIS B 1757-1:2012 Evaluation of instruments for the measurement of individual gears -
Part 1: Method by gear shape artifacts

JIS B 1758:2013 Acceptance tests for gear measuring instruments

Calibration Scope

Reference diameter : From 20 mm up to 250 mm

Shaft length : Up to 300 mm

Face width : From 5 mm up to 100 mm

Calibration Items

▪ Profile	▪ Helix	▪ Pitch
Profile deviation,total	Helix deviation,total	Single pitch deviation
Profile form deviation	Helix form deviation	Cumulative pitch deviation,total
Profile slope deviation	Helix slope deviation	



Calibration Uncertainty

Calibration Uncertainty is subject to change depend on the dimension of the gear to be calibrated. So, it is recommended to contact us previously to check uncertainty in calibration for the particular gear including its advisability.



GMC's calibration is corresponding to MRA JCSS.
JCSS 0190 is accreditation number for GMC.

