

ACCREDIA CALIBRATION SERVICE

GIBITRE INSTRUMENTS IS OFFICIAL ACCREDIA CALIBRATION LABORATORY N° 182 ACCORDING TO ISO 17025 STANDARD AND PROVIDES CALIBRATION SERVICE FOR SHORE AND IRHD HARDNESS TESTERS.



LAT N° 182

**Signatory of EA, IAF and ILAC
Mutual Recognition Agreements**

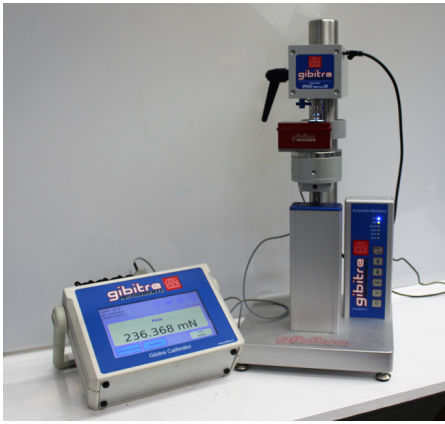
**Membro degli accordi di Mutuo
Riconoscimento EA, IAF e ILAC**



Accredia Calibration Service

Gibitre Instruments' metrological laboratory is official ACCREDIA calibration laboratory for the calibration of:

- Shore A, Shore D, tester according to ISO 48-4:2018 and ISO 868:2003 standards
- IRHD Micro, IRHD-Normal, IRHD-Hard, and IRHD-Low hardness testers according to ISO 48-2:2018 standard.



Characteristics of the service offered

The metrological laboratory of Gibitre Instruments has developed technical procedures and fastening devices for ACCREDIA calibration of IRHD and Shore durometers produced by all the major world producers.

Calibrations are performed in the metrology room of Gibitre Instruments, with controlled environmental conditions.



Why an instrument should be calibrated ?

The calibrations allow you to determine the error of indication of instruments in order to ensure more precise and reliable measurement results.

The calibrations are carried out by comparing the indication of the instrument with the measurement of corresponding known values with the relative uncertainties.

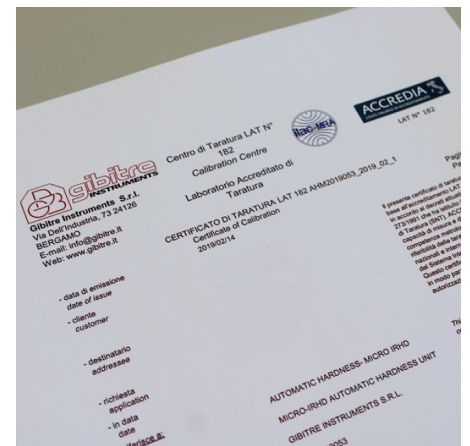
The calibration process of instruments and samples by laboratories accredited according to ISO / IEC 17025 consists in the comparison with a higher level reference sample and thus allows the measurements they produce to acquire the metrological traceability to national or international samples.

Calibration is necessary for the compliance of a measuring equipment with the requirements for their use. Normally, equipment calibration is performed:

- Before they are put into service;
 - When adjustments or repairs are made;
 - If foreseen by the contract with the client, before and after the setting up.
- The outcome of the calibration is reported on the calibration certificate issued at the end of the activity.

The accreditation of the laboratories that perform the calibrations ensures the metrological traceability of national or international samples over time.

The ultimate goal is to reduce the margins of error for achieving more precise and reliable measurements.



Which is the meaning of the iso 17025 accreditation of a laboratory?

Accreditation ensures that the calibration laboratory has all the requirements required by the standards for carrying out conformity assessment activities.

Accreditation is the certification, by an entity acting as super partes guarantor, of the calibration laboratory's competence, independence and impartiality.

The accreditation of the laboratory confers on the calibration certificates issued on the market, a high degree of reliability in terms of quality and safety of the instruments subjected to verification, and guarantees their recognition on international markets. Worldwide, accreditation is carried out on the basis of the international standard ISO / IEC 17011. Within the European Union, the European Regulation 765/2008 provides that each member state appoints its own unique national accreditation body and has conferred for the first time to this activity a legal status, recognizing it as an expression of public authority. In Italy, the single accreditation body designated by the government is Accredia.

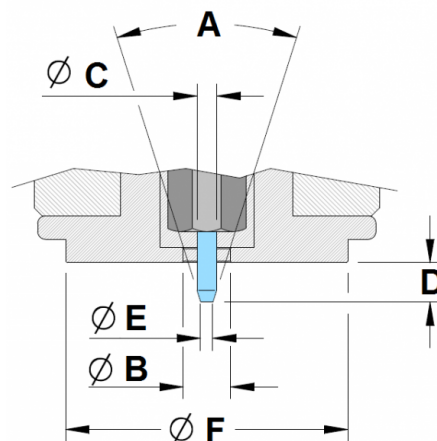
Accredia is a member of the international networks of the accreditation bodies and is the signatory of the relevant international mutual recognition agreements, thanks to the passing of a peer evaluation process.

How we calibrate your hardness tester ?

Accredia calibration for each type of durometer is carried out according to the relevant Technical Procedure approved by ACCREDIA and which includes all the measures required by the reference standards.

The calibration involves the following steps:

- Minimum thermal conditioning of 4 hours at controlled temperature and humidity.
 - Functional verification and verification of the pre-calibration reading of the instrument with comparison samples.
 - Possible adjustment of the instrument
 - Dimensional Calibration of the Indentor and of the Anular Foot
 - Calibration of Forces applied by the Indentor and by the Anular Foot
 - Calibration of the Displacement of the Indentor
 - Calibration of the time of duration of the test
 - Verification of the post-calibration reading of the instrument with comparison samples.
 - Preparation of the Accredia Calibration Certificate which shows all the measures described above.
- At the end, the instrument is packed for the shipment.



A Quick and Safe service.

Gibitre has a solid experience regarding the manipulation and calibration of hardness testers and has performed more than 1500 calibrations since 2005.

The measurements made with the instrument before any adjustment and calibration operations and any variations with the pre-calibration conditions are recorded.

By pre-arranging the delivery date of the instruments with the Gibitre sales office, we can perform the back-shipment of the instrument within 24 hours from delivery.

Instruments that do not meet the Accredia calibration requirements are returned without charging calibration service.



What happens if the instrument does not measure correctly ?

- If during calibration, all the characteristics of the instrument are compliant with the provisions of the reference standard, the Declaration of Conformity of the instrument that certifies full compliance for use is shown in the Calibration Certificate.
- If the instrument does not work properly or can not be adjusted to achieve full compliance with the requirements of the reference standard, the calibration is stopped and the instrument is returned at no charge.





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