




Traceable Force Calibration

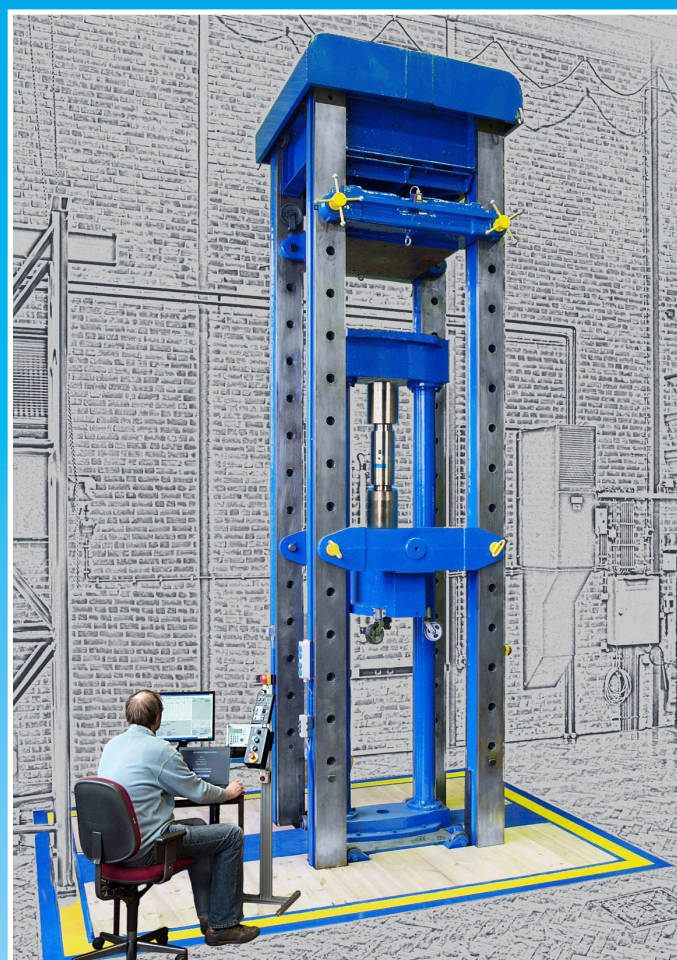


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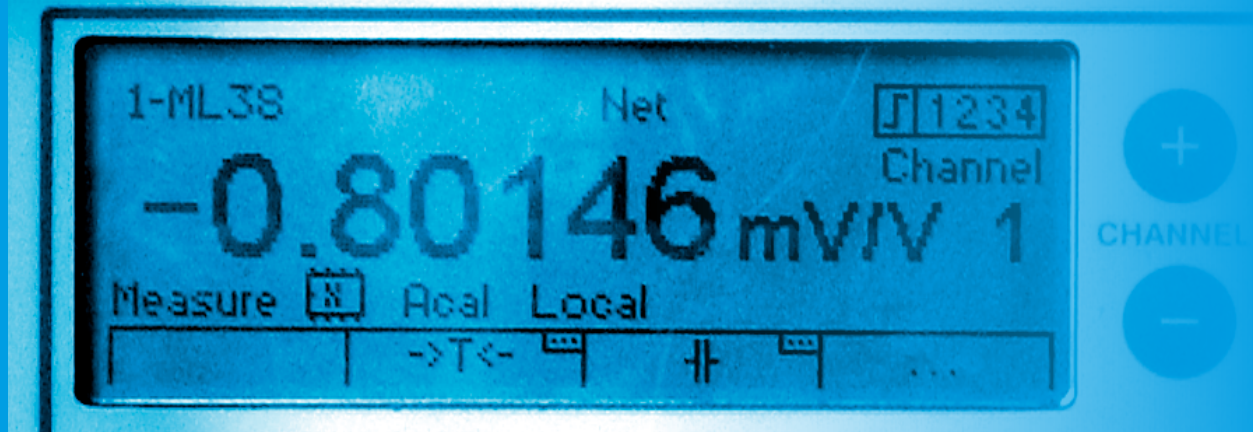
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Force measurement is the basis for reliable test and qualification results. Therefore the NLR Force calibration laboratory provides traceable force calibration for (aircraft) industry and laboratories.



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Accredited NLR Force Calibration Laboratory

Calibration of:

- force indicating and generating instruments used for test- and qualification programs
- material test devices such as tension-, compression-, creep-, hardness- or fatigue testing machines
- stand alone force transducers e.g. used in test rigs
- aircraft parts before subjected to a test procedure in a qualification program

Force Calibration Laboratory Reference Standards from 1 N up to 3 MN

- three HBM amplifiers (dual channel type, 0.04000 – 5.0000 mV/V)
- > 20 HBM / Peekel / Revere force transducers as reference standard (10 N – 3 MN)
- deadweight sets (1 N – 300 N)
- secondary force reference standards 250 kN Schenck-Trebel and 2 MN Avery
- secondary dead weight force reference standard 40 kN Amsler

Traceability and accreditation

- all reference standards are being calibrated traceable to international standards (PTB, NPL, VSL)
- regular comparison to other laboratory (reference) standards by means of interlaboratory comparisons
- calibration accreditation by the Dutch Accreditation Body according to EN17025

Environmental conditions

- Force calibrations can be carried out at the NLR Force Calibration Laboratory under laboratory conditions
- Force calibrations up to 40 kN can also be carried out at environmental conditions other than normal laboratory conditions (e.g. lower temperatures)

Site calibrations

- Force calibrations can be carried out in-house as well as on-site

Examples reference standards:

1.5 MN (1500 kN)

3 MN (3000 kN)

100 N COMPRESSION

