Traceable Force Calibration

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.
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