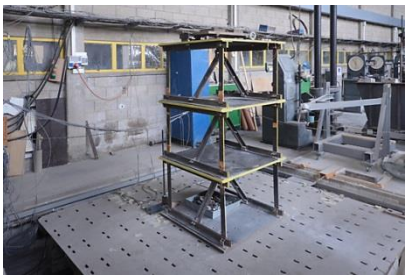
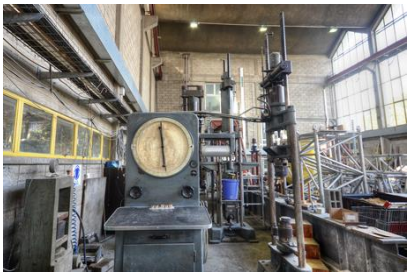
Testing Hall and Structural Engineering Laboratory

The main testing hall at NBRI includes several testing facilities for material and structural tests, as outlined below, and a strong Test Floor, which enables versatile arrangement of various set-ups for medium to large scale specimens of structural components such as beams, columns, walls etc. Part of this floor is dedicated to a permanent special steel frame, with an actuator of 500-kN and 150-mm stroke that enables testing of specimens with a height of up to 2 m. This actuator is connected to an MTS controller that enable testing with a stroke control to a variety of static and dynamic loading programs.

The specific equipment in this lab includes:

- Shaking Tables: Large 1-DoF table, 3 m X 3 m, up to 50 kN, 1-10 Hz, horizontal sway ±50 mm. Small 1-DoF table, 40cm X 60 cm, up to 40 N.
- Compression and Tension Testing Systems: Manually controlled machines with capacities: 1, 100, 300, 1000, 5000 kN.
- Controllable Actuators: In compression and tension with capacities 100, 500 kN, and in compression with a capacity of 2000 kN.
- Hydraulic Jacks: 25 jacks and a central controlling system. Force capacities include160, 180, 320, 350, 420, 500 kN, and maximum travel: 60, 100, 150, 380, 450 mm.
- Static and dynamic measurement laboratory: Including data acquisition systems, and a variety of force, displacement, acceleration and strain transducers, as well as pulsators. Force transducers include: In compression 100, 250, 500, 5000 kN; In tension 5, 50 kN; In tension and compression 5, 50 kN; Hollow 500 kN.