

CERN operates and maintains a large number of technological infrastructures aimed at the production and testing of magnets and accelerator components, which are placed in different locations on the two main sites of the Laboratory.

### Magnetic Measurement Facilities

Equipment to measure magnets with apertures ranging from 8 mm to 120 mm with capability to test many kinds of magnet with very short lead time owing to the extraordinary variety of instruments and sensors available.



### Large Magnet and Long Cryostats Assembly Facility

Fabrication of SC magnets 4-16 meters, equipped with cable insulating machines, winding machines, curing press, collaring press, welding press, alignment systems using laser trackers, pressure and leak test equipment, electrical testing equipment, vertical tower for assembly of magnets using inertia tube till 10 meters of length.



/CERN building 180 and 181/

### Magnet Laboratory

Construction and assembly of SC magnets up to total length of 3 meters (prototypes and special productions).

### SM18 Superconducting Magnet Test Facility

Horizontal and vertical test station allowing to test at cryogenic temperature magnets and special accelerator magnet components up to 13kA in horizontal and up to 20 kA in vertical position of cryostated or non cryostated magnets.



/CERN SM18 Superconducting Magnet Test Facility/

### Superconductors and Cabling Facility

Superconducting cabling machine for the fabrication of Rutherford type cable having a maximum capacity of 40 wires. Test laboratory for characterization and qualification of superconducting materials, wires and cables.



/CERN building 103 and 163/

Presently most of the CERN technological infrastructures are fully occupied because of the needs of the LHC luminosity upgrade and of other accelerator projects. Access to the infrastructure is possible for external users but has to be agreed on a case-by-case basis giving priority to internal users.