CONTACT

If you would like to book time at the facility, the schedule and instructions to Become a User are on the website or contact FTBF_Co@fnal.gov.

http://www-ppd.fnal.gov/FTBF

Fermilab

Test Beam Facility

http://www-ppd.fnal.gov/FTBF

Fermilab

TEST BEAM FACILITY

Information for Experimenters

ABOUT FTBF

The Fermilab Test Beam Facility (FTBF) is devoted to detector research and development. The facility consists of two versatile beam lines (MTest and MCenter) in which users can test equipment or detectors.

The facility is located at the Fermi National Accelerator Laboratory in Batavia, IL on the west side of the Meson Detector Building.

ABOUT THE BEAM

Typically, beam is delivered in one 4 second spill per minute, 24 hours a day.

Primary beam:

- 120 GeV protons at moderate intensities (~1-300 kHz).

Secondary Beam:

- 60 – 8 GeV Pions (some protons)
- 32 – 1 GeV Pions, electrons, kaons or broadband muons

Tertiary beam: (available only in MCenter beamline)

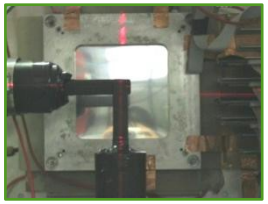
- 1 GeV – 200 MeV protons, pions, (some kaons, electrons)

More Beam Details can be found on our webpage, http://www-ppd.fnal.gov/FTBF/beam/energies.html.

ABOUT THE FACILITY

Within the beamline enclosures and available to all approved users, the facility provides **web-cameras** with 26x optical zoom, and **motion tables** of various sizes and capacities which can be viewed and controlled remotely from the control rooms while beam is running.

The beam enclosures are outfitted with a system of **lasers** such that users can determine the nominal location of the beam (in x and y), and set up their apparatus accordingly.



The facility also provides multiple types of beam **detector instrumentation** for tracking, particle identification, and triggering. These include scintillator counters, Cerenkov detectors, lead glass calorimeters, silicon telescopes, time-of-flight systems and wire chambers. These systems can work alone and come with their own DAQ system or they can be integrated into the user's setup.

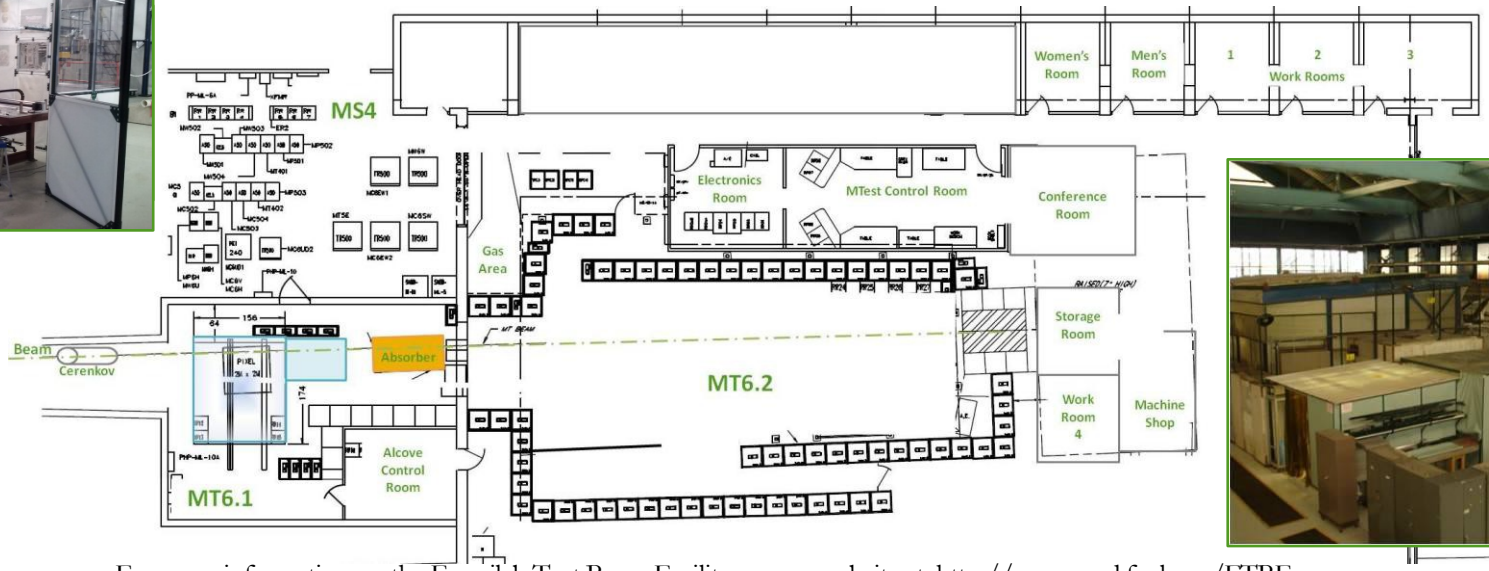
The Facility is outfitted with a **gas distribution system** which delivers gas to several locations some of which have flammable gas capabilities. Some gases, like N_2, or Ar/CO_2, are provided by the facility.

Beam enclosures are also outfitted with Signal (BNC/lemo), High Voltage, and network **patch panels** located at predetermined positions throughout the enclosures near equipment setup areas. These patch panels are linked to the various control rooms.

Climate controlled beam areas are also available.

PERFORMANCE

Since 2005 the Fermilab Test Beam Facility has performed 58 experiments, consisting of 835 individual users, from 177 institutions, in 30 countries!



For more information on the Fermilab Test Beam Facility see our website at: http://www-ppd.fnal.gov/FTBF