

TESLA Test Facility: Status and Results, B. AUNE

for the TESLA collaboration, DESY - The TESLA Test Facility (TTF), under construction at DESY by an international collaboration, is an R&D test bed for the superconducting option for future linear e^+/e^- colliders. It consists of an infrastructure to process and test the cavities and of a 500 MeV linac. The infrastructure has been installed and is fully operational. It includes a complex of clean rooms, an ultra clean water plant, a chemical etching installation and a ultra-high vacuum furnace. The linac will consist of four cryomodules, each containing eight 1 meter long nine-cell cavities operated at 1.3 GHz. The base accelerating field is 15 MV/m, with a Q of $3 \cdot 10^{10}$. Two 5 MW klystrons feed the 32 cavities. A first injector delivers the full average current (8 mA in pulses of 800 us) with reduced bunch charge at an energy of 10 MeV. A more powerful injector based RF gun technology will ultimately deliver a beam with high charge and low emittance. By mid-96, a beam of 120 MeV through the first module is expected. Overview and status of the facility are given. Plans for the future use of the linac are presented.