The ANKA Injector, D. EINFELD, F. PEREZ, U. RISTAU, R. ROSSMANITH, Forschungszentrum Karlsruhe (FZK), ANKA Project Group, Germany; N. HERTEL, S.P. MOELLER, Inst. for Storage Ring Facilities, Aarhus University, DK-8000 Aarhus C, Denmark; H. BACH, B.R. NIELSEN, L. PRAESTEGAARD, DANFYSIK, DK-4040 Jyllinge, Denmark - ANKA is a 2.5 GeV synchrotron light source under construction at the Forschungszentrum Karlsruhe. The injector is a 500 MeV booster synchrotron with a repetition rate of 1 Hz and a 50 MeV racetrack microtron as pre-injector. The whole injector complex including the transfer lines from the microtron to the booster and from the booster to the storage ring will be built by Danfysik. The booster synchrotron is optimized in such a way that with only one quadrupole family a momentum compaction factor of 0.28 and an emittance of 0.15 mm.mrad at 500 MeV is obtained. This is achieved by using the pole face angles as active optical elements both for focusing and emittance reduction. Despite the fact that only one quad family is used the Q-value can be changed over a relatively wide range. The design current of the booster synchrotron is 10 mA. The design for all elements is completed and the comissioning of the whole injector is planned for the second half of 1999.