

An UHV Vacuum System for DAΦNE, A. CLOZZA, V. CHIMENTI, C. VACCAREZZA, INFN-LNF - A 510 MeV high luminosity Φ -Factory is under construction in Frascati. The main goal of the vacuum system is to maintain a mean pressure of $1 \cdot 10^{-9}$ mbar, after conditioning, with a stored current of 5.3 A per beam. The vacuum chamber is almost entirely made of aluminium. The inner surface of the chamber has a roughness of about 0.1- 0.2 μ Ra. The vacuum system is completely oil free and all the vacuum components are all metal type. Special RF shielded bellows were designed avoiding any sliding contact. The synchrotron radiation produced in bending magnets and wigglers is intercepted by water cooled copper synchrotron light absorbers. The design of the pumping system was optimised in order to install the required pumping speed, about $3 \cdot 10^5$ l/s, on a 100 m long ring. A combination of titanium sublimator pumps, sputter ion pumps and non evaporable getter pumps has been chosen.