

ABSTRACT

Modern anterior segment imaging techniques, such as Slit-scanning and Scheimpflug imaging, greatly improved the field of corneal imaging. Devices such as the Orbscan (Bausch & Lomb Surgical, Inc.) and, more recently, the Pentacam (Oculus, Inc.) and the Galilei (Ziemer Ophthalmic Systems AG) have brought a whole new range of clinical possibilities and sparked interest in the academic community. These new tomographers create three-dimensional models of the cornea and enable the direct measurement of the both anterior and posterior surface elevation. In this paper, we present a review of some available literature on those systems, regarding their optical principles and their performance in current clinical applications.