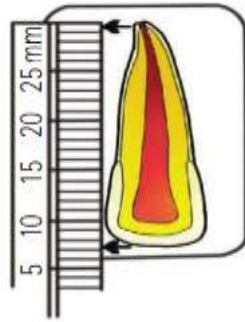
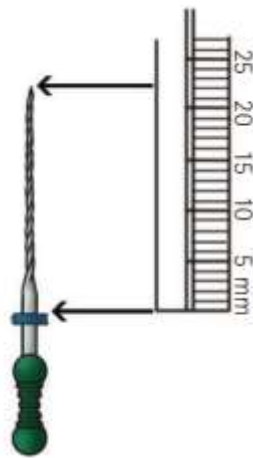


Ingle's Radiographic Method of Working Length Determination

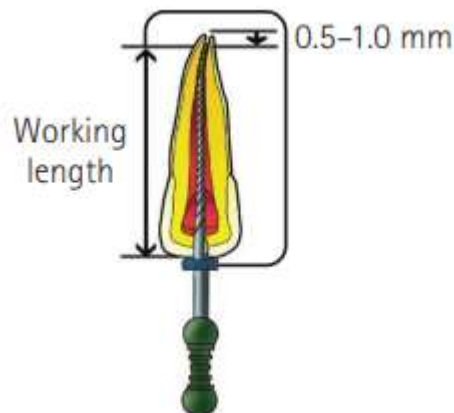
Diagnostic radiograph used to estimate the working length of the tooth by measuring the tooth from a stable occlusal reference point till the radiographic apex



Subtract at least 1 mm from this length as Minor constriction is always present short of the anatomic apex Compensation for radiographic image distortion



This measurement is transferred to a diagnostic instrument with a silicon stop, which is placed in the root canal and working length radiograph taken



On the radiograph, measure the difference between the end of the instrument and the radiographic apex of the root

Tip of the instrument ends 0.5 mm–1.0 mm from the radiographic root apex (Working length established)

Short of the radiographic apex > 1.0 mm

Add this value to the earlier estimated length and adjust stopper on the diagnostic instrument accordingly
Retake the working length radiograph

Beyond the radiographic apex

Reduce this value from the earlier estimated length and adjust stopper on the diagnostic instrument
Retake the working length radiograph