

Manufacturer's Recommendations for Alternate Dental CBCT QA Program

Yoshida Model: PreXion3D Eclipse

Table 3A

Computed Tomography QC Requirements

Item	Required Test or Procedure	Frequency	Substitute Test or Procedure	Standard
1	Equipment Function: Indicators, Mechanical & other Safety Checks	Daily	PreXion3D Eclipse Operation Manual Safety Information Pages: V to XVII (Appendix A)	Must work properly
2	Film Processing QC Testing	Daily	None – Not Applicable	None – Not Applicable
3	CT Number for Water	Daily	PreXion3D Eclipse Operation Manual 10. Quality Assurance (QA) Procedure 10.2 QA Procedure 10.2.6 Grey Scale equivalent Pages: 7 & 9 (Appendix B)	Upper Limit -800 Lower Limit -1024
4	Field Uniformity	Daily	PreXion3D Eclipse Operation Manual 10. Quality Assurance (QA) Procedure 10.2 QA Procedure 10.2.5 Image Uniformity/Noise Standard Deviation/Artifact Evaluation Pages: 6 & 9 (Appendix B)	Standard Deviation (SDev): Upper Limit less than 50
5	Laser Film Printer QC	Weekly	None – Not Applicable	None – Not Applicable
6	Low Contrast Resolution	Initial & Annually	PreXion3D Eclipse Operation Manual 10. Quality Assurance (QA) Procedure 10.2 QA Procedure 10.2.4 Low-contrast Resolution Pages: 5 & 9 (Appendix B)	Lower Limit 4.6 mm Upper Limit 5.3 mm
7	High Contrast Resolution	Initial & Annually	PreXion3D Eclipse Operation Manual 10. Quality Assurance (QA) Procedure 10.2 QA Procedure 10.2.3 High-contrast (spatial) Resolution Pages: 4 & 9 (Appendix B)	Upper Limit 0.7 mm
8	Noise	Initial & Annually	PreXion3D Eclipse Operation Manual 10. Quality Assurance (QA) Procedure 10.2 QA Procedure	Standard Deviation (SDev): Upper Limit less than 50

			10.2.5 Image Uniformity/Noise Standard Deviation/Artifact Evaluation Pages: 6 & 9 (Appendix B)	
9	Scan Localization Light Accuracy	Initial & Annually	PreXion3D Eclipse Operation Manual 2.1.9 Checking Scan Area (X-ray Scout Shot) Pages: 2-32 to 2-43 (Appendix A)	If the result after checking the display shows that the position is incorrect, adjust the patient's position again and repeat the operations from Step 7.
10	Medical Physicist's QC Survey	Initial & Annually	See N.J.A.C. 7:28-22.10(a)	N.J.A.C. 7:28-22.10(a)
11	Medical Physicist's Quality Assurance Program Review	Initial & Annually	See N.J.A.C. 7:28-22.10(a)	N.J.A.C. 7:28-22.4(a)7