PRIMA DIGITAL

In partnership with a leading UK
University of Medicine and Dentistry

Independent report shows Prima Digital tools perform **more precisely** and **more consistently** than the market leader.

The Report

1.0 Aim of the study

To evaluate the quality of milled crowns using topography analysis. Crowns from a Digital Model were milled using three set of tools Ø2mm, Ø1mm, Ø0.6mm made by three manufacturers. Volume of the Outer Surface and the Inner Surface of milled crowns were measured and compared with the Digital Model.

2.0 Results – The Outer Surface

Fig. 1 – Outer Surface of the Digital Model

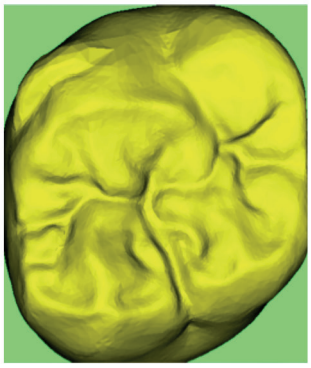


Fig. 2 – Scan of Prima Digital milled Crown

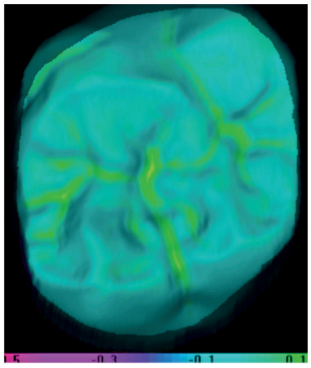


Fig. 3 – Scan of Competitor 1 milled Crown

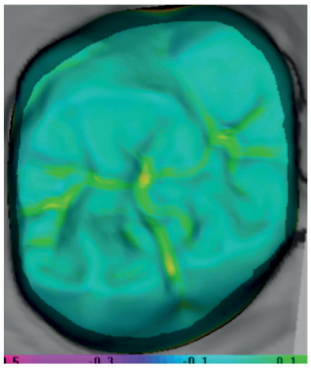
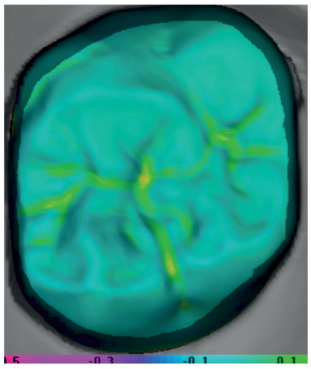


Fig. 4 – Scan of Competitor 2 milled Crown



This table summarises the results for the Outer Surface. Prima tools have found to generate the least deviation from the digital model.

	Outer Surface	Mean Volume Deviation (mm^3)	Total Volume Deviation (mm^3)	Observations
Prima Digital	Disc 1	0.067	0.003	Deviation of milled crown volume to the digital model remains consistent through the life of tools.
	Disc 4	0.06		
	Disc 9	0.07		
Competitor 1	Disc 1	0.02	0.13	Deviation of milled crown volume to the digital model increases as tools wear out.
	Disc 4	0.15		
	Disc 7	0.12		
Competitor 2	Disc 1	-0.14	0.16	Milled crown volume tends to be smaller than the digital model. Even though a small deviation of 0.02 is seen at Disc 7, chipped margins would still cause crowns to be rejected.
	Disc 4	-0.12		
	Disc 7	0.02		

3.0 Results – The Inner Surface

Fig. 5 – Inner Surface of the Digital Model

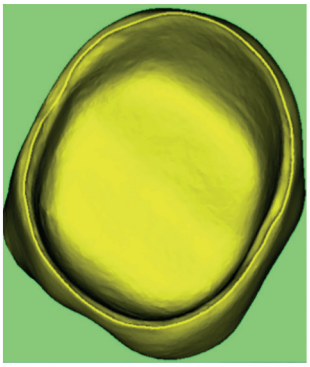


Fig. 6 – Scan of Prima Digital milled Crown

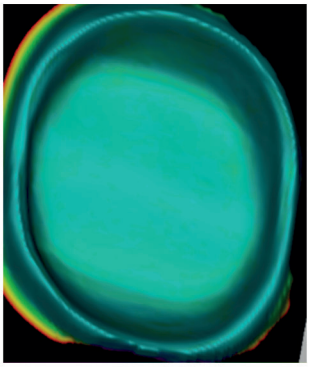


Fig. 7 – Scan of Competitor 1 milled Crown

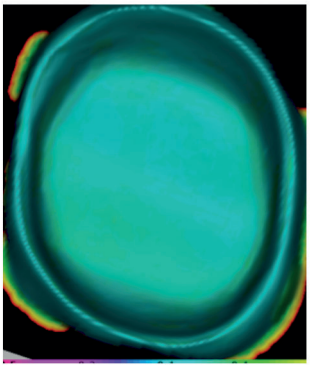
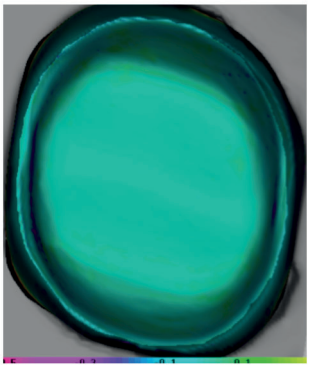


Fig. 8 – Scan of Competitor 2 milled Crown



This table summarises the results for the Inner Surface. Prima tools have found to generate the least deviation from the digital model.

	Inner Surface	Mean Volume Deviation (mm^3)	Total Volume Deviation (mm^3)	Observations
Prima Digital	Disc 1	-0.19	0.3	Deviation of milled crown volume to the Digital Model increases as tools wear out. But total deviation value is the smallest among all tools.
	Disc 4	0.05		
	Disc 9	0.11		
Competitor 1	Disc 1	-0.24	1.2	Deviation of milled crown volume to the Digital Model increases as tools wear out. And, the total deviation value is the largest among all tools.
	Disc 4	0.66		
	Disc 7	0.96		
Competitor 2	Disc 1	-0.82	1.67	There is inconsistency in crown volume deviation from the Digital Model.
	Disc 4	0.85		
	Disc 7	-0.04		

4.0 Conclusion

Prima tool set has proven to be able to produce a more accurate restoration as compared to tools used in this test.

"Based on the findings of a leading UK University of Medicine and Dentistry's independent testing the Prima Digital tool set has proven to mill a more accurate restoration when compared to competitor tools used in this test."

Dr Marilyn Goh (Phd)