

# New Recommended Scanner Settings

## For Selective Laser Melting - Jan 2015



### Why Do We Have New Settings?

The new parameters allow for more consistent fit and better, less bulky margin contour. In return, less time is spent finishing margins and seating units.

Two main areas were focused on:

1. Fit settings at margin and body of the crown
2. Contour and thickness settings

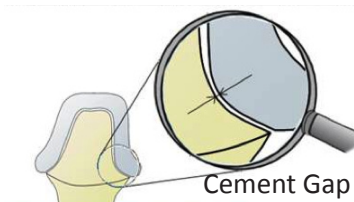
#### Fit Settings at Margin and Body of Crown

- Increased the Extra Cement Gap space to give a more forgiving fit overall.
- Increased the surface area and tightened the Cement Gap space near the margin, which gives a more accurate initial seat and also increases the ability to have a more sealed margin.
- Increased the Drill Radius Settings to create slightly more space, but only in areas with sharp corners.

#### Contour and Thickness Settings

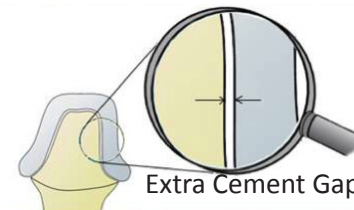
- Decreased the overall thickness of the margin by changing the Margin Angle and increasing the Margin Line Offset. The result is much less bulk at the margin, which means less grinding and a more robust margin line for consistent results.

### Fit Settings



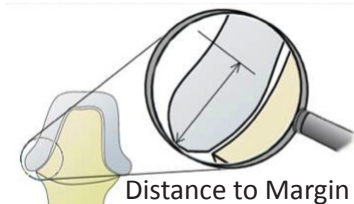
#### New .02mm/Old .03mm

The Cement Gap at the margin has been reduced for a better seat and more intimate fit at the margin.



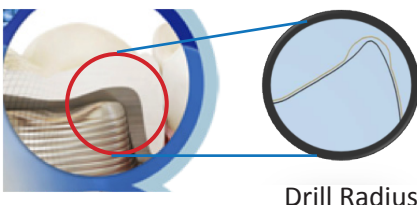
#### New .08mm/Old .06mm

The Extra Cement Gap has been increased for a more forgiving and passive fit up inside the crown.



#### New 1.5mm/Old 1.0mm

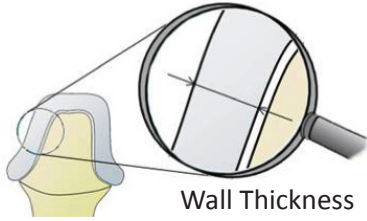
We increased the Distance to Margin Line to increase the intimate seating surface near the margin. This represents the Cement Gap surface area measurement before transitioning to Extra Cement Gap space.



#### New .5mm/Old .3mm

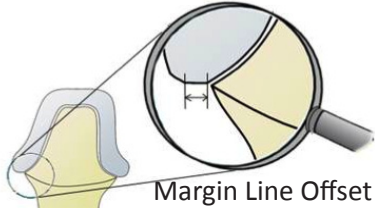
We increased the Drill Radius to create slightly more space in the corners of the coping, so it is more adaptive to difficult or sharp geometry.

## Contour & Thickness Settings



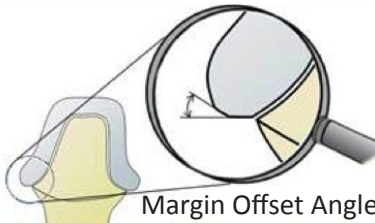
### .4mm “Wall thickness”

This is unchanged and is the minimum thickness for your coping.



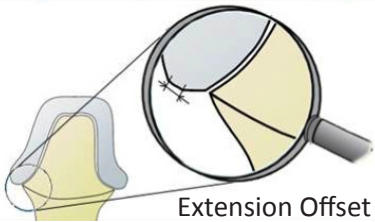
### New .2mm/Old .15mm

The new setting is .05 thicker than the original, but will not affect the visual thickness of your margin area. This is not a big contributor to overall thickness and is imperceptible even under magnification.



### New 80°/Old 65°

This reduces thickness at the margin and is the #1 setting that affects overall margin thickness.



### .1mm

This is the overall distance of the angle and is not changed.

## Settings Changes at a Glance

	Non-Precious & Noble		High Noble	
	Old	New	Old	New
Cement Gap	0.03	0.02	0.03	0.03
Extra Cement Gap	0.06	0.08	0.06	0.08
Distance to Margin	1.00	1.50	1.00	1.50
Smooth Distance	0.20	0.20	0.20	0.20
Wall Height	1.00	1.00	1.00	1.00
Margin Thickness	0.15	0.20	0.15	0.20
Angle	65	80	65	80
Extension Offset	0.1	0.1	0.1	0.1
Wall Thickness	0.40	0.40	0.40	0.40
Drill Radius	0.3	0.5	0.5	0.5
Drill Compensation	0.6	0.6	0.6	0.6

\*Setting descriptions for Exocad & DentalWings will be slightly different.