

CAD / CAM Preparation Kit

Delivering the Highest Level of Precision
for CAD / CAM Restoration

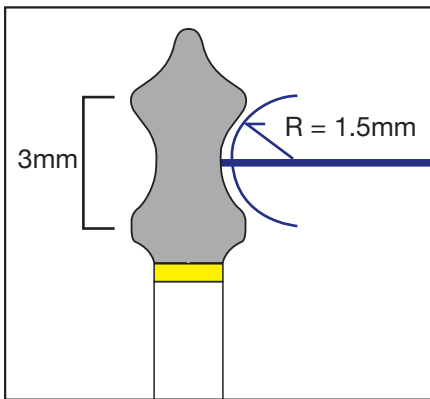


CAD / CAM Preparation Kit

With the routine prescription of CAD / CAM restorations in the dental practice, the clinician has to rely on rotary instruments that provide precision and efficiency during tooth preparation to ensure precise scanning and subsequent milling of the restoration.

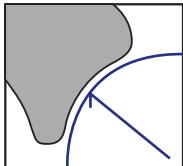
CAD / CAM Preparation kit consists of a special assortment of 11 diamond burs for quick, easy and precise preparation of abutment for CAD / CAM restoration. Unique new shapes provide the desired thickness and rounded incisal and cuspal angles in the abutment, that are critical for the precision of the CAD / CAM restoration.

The Kit Contents:



SF 151:

Special symmetrically biconcave bur with an even curvature radius of 1.5 mm allows rounding off of cuspal and incisal edges to meet precise scanning and milling parameters. The curvature is designed to conform to the incisal edge for appropriate thickness.

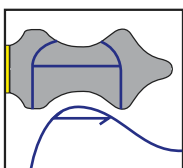


R = 1.6mm



Bur tip is also curved symmetrically with an even curvature radius of 1.6mm to enable rounding off of the cuspal and incisal angles.

3mm

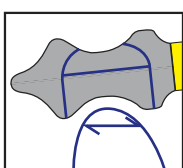


2 ~ 2.5mm



The concavity has a total length of 3mm to ensure thickness of at least 2mm - 2.5mm when the concave surface of the bur comes in contact during preparation of the cuspal edge of posterior teeth.

3mm



1.5mm



Half the concavity of the bur adapted along the incisal edge of anterior teeth ensures thickness of at least 1.5mm.

CAD / CAM Preparation Kit – Guidelines for tooth preparation

Preparation of Anterior Tooth



Interproximal preparation

Break the contact area and prepare interproximal area with Diamond bur 102R.



Gingival Retraction

Retract gingiva with 2 layers of retraction cord applied along the entire circumference of the abutment tooth.



Incisal Preparation

Reduce the incisal height with Diamond bur 106RD by positioning the bur along the incisal edge perpendicular to the tooth axis.



Rounding off the preparation for accurate scanning

While maintaining the thickness of the incisal edge, round off the incisal edge with SF151. The radius of central concavity of SF151 is 1.5mm and that of the convexity is about 3mm.



Margin Preparation

Remove the unsupported enamel and smoothen the finish line with SF114.



Surface characteristics

Check for any steps or irregularity on the surface of abutment teeth by tracing with an instrument.

Preparation of Posterior Tooth

Break interproximal contact area, place double retraction cord and prepare the axial surface of the tooth.

Check the final surface in the same way as the anterior tooth.



Occlusal Preparation

Prepare the occlusal surface with 265R and SF265R. Check the preparation depth using the reduction guide. Ensure that there is adequate preparation at the cuspal angles and grooves.



Rounding off of the preparation for accurate scanning

While maintaining the thickness, round off the cuspal edge with SF151. Round off the cuspal angles by adapting the concavity at the tip of SF151.





Axial Preparation

- Prepare the axial surface of the tooth with Diamond burs 106RD and SF106RD.
- Check the depth of preparation with reduction guide.



Palatal Preparation

Prepare palatal side with Diamond along the concavity of the tooth.



Surface Finish

Remove any irregularities and finish the line angles with SF107RD.



It is important to ensure that adequate depth of preparation is maintained with rounded incisal and line angles.

Final Verification

Check the depth of final preparation with the reduction guide.



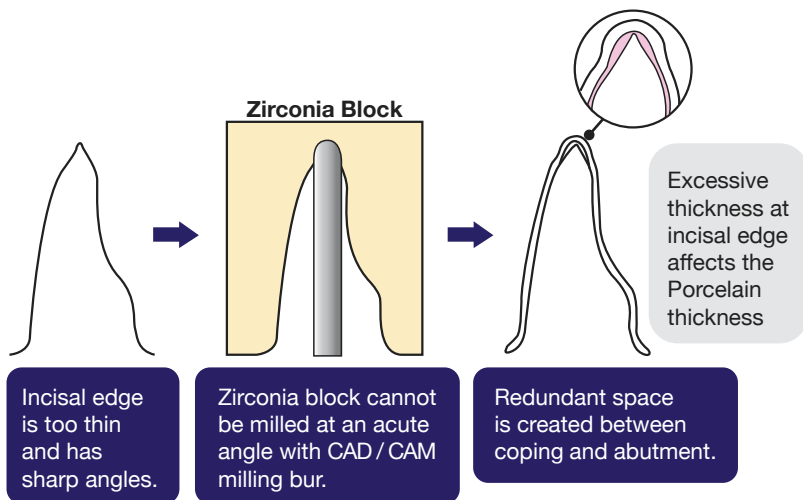
Final confirmation

Check the final preparation depth and uniformity with the reduction guide.

Clinical photos courtesy of Dr. Yoshihiko Mutoke

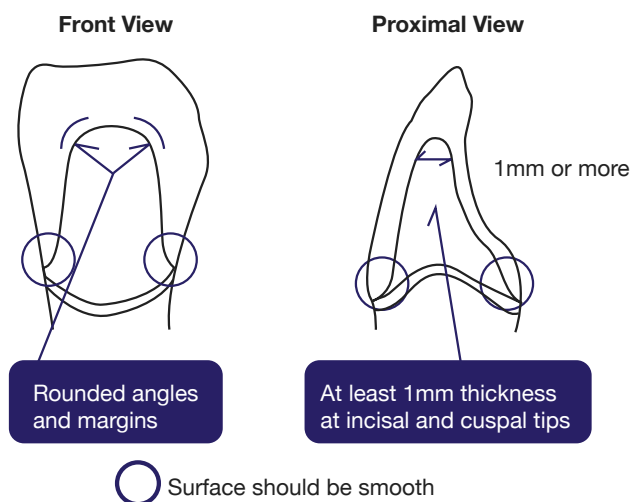
Reduction guide: It is the split impression (cut into half) created with putty impression. It is used for rough estimation of preparation depth.

Importance of maintaining adequate thickness and curvature at incisal and cuspal edges of abutment teeth for CAD / CAM restoration



Inadequate thickness or sharp angles at incisal edge of the abutment leads to the creation of redundant space between the coping and abutment while milling due to the shape of CAD / CAM milling bur.

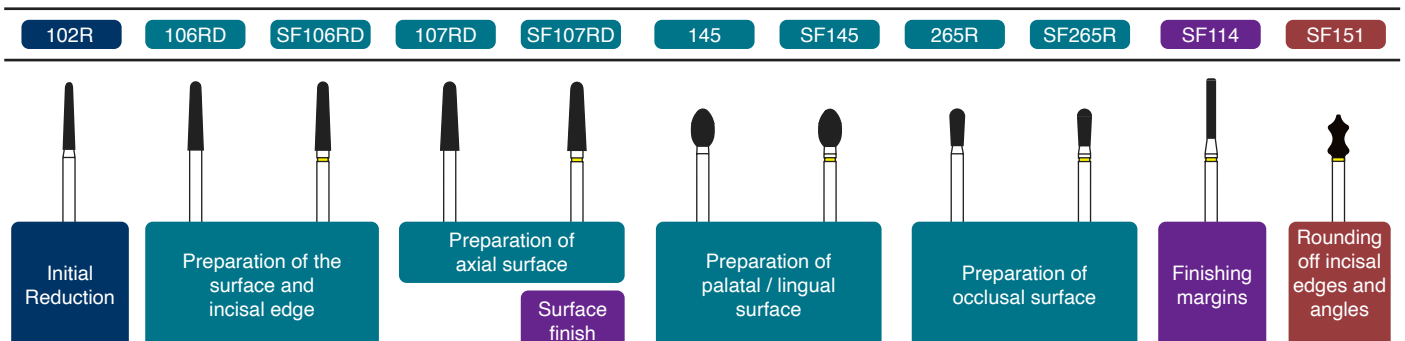
Criteria for tooth / abutment preparation for CAD / CAM restoration



Incisal or cusp tip thickness should be at least 1 mm thick to conform to diameter of milling bur. Incisal or cusp tip of the abutment should be rounded with adequate thickness. Margins should be smooth and rounded for accurate scanning.

11 shapes that guarantee precise preparation for CAD / CAM restoration

NEW



• Super Fine burs are available in the same shape as regular burs except for 102R.



SHOFU DENTAL ASIA-PACIFIC PTE. LTD.

1 Science Park Road, #01-01 / 02 The Capricorn, Science Park II,
Singapore 117528 Tel: (65) 6377 2722
eMail: mailbx@shofu.com.sg www.shofu.com.sg