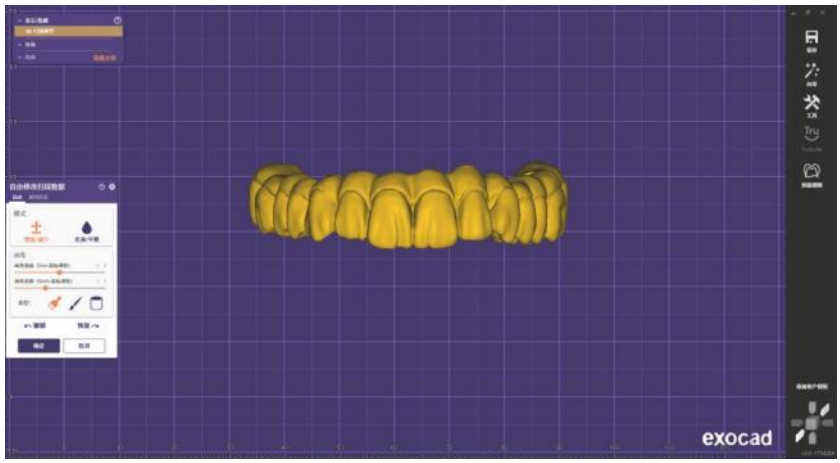
INSTRUCTIONS FOR USE - Aizir (All on six)

1. Designing



Please design according to the following minimum thickness requirements:

Type of restoration		Crown	Bridges up to 3 units	Bridges 4 units and up
Anterior	Wall thickness	≥0.7mm	≥0.8mm	≥1.2mm
	Connectors	-	≥9mm²	≥12mm²
Posterior	Wall thickness	≥0.8mm	≥1.0mm	≥1.2mm
	Connectors	-	≥12mm²	≥12mm²

2.Nesting

2.1 Select a zirconium block whose thickness is basically the same as the height of the teeth to ensure the gradient effect of the teeth. Example: The height of the tooth is 19.2mm. Need to choose a thickness of 20mm or 22mm do not choose a thicker zirconium block above 25mm.

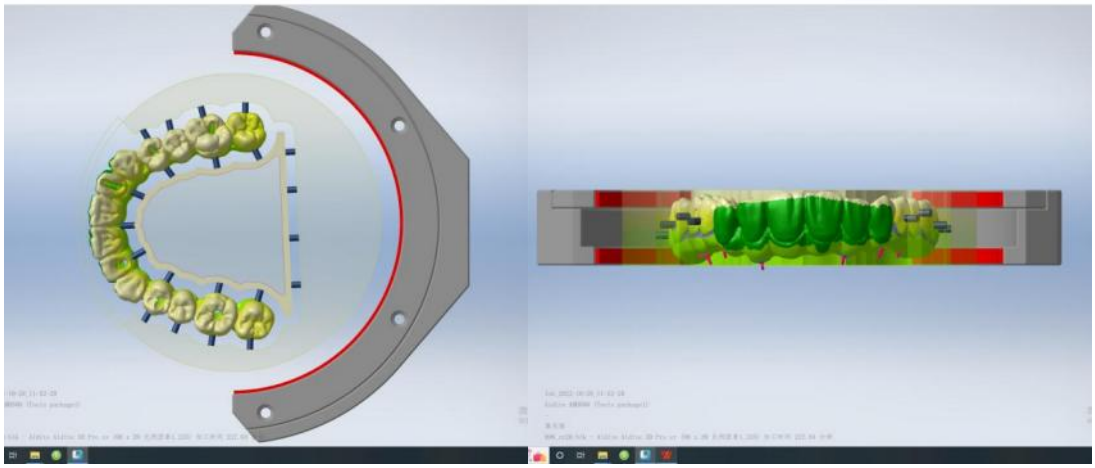
2.2 The long bridge must be strengthened with belts to prevent shrinkage and deformation. A hollow sintering rack is recommended.

2.3 According to the weight of the long bridge, choose a sintering frame with the same weight. In this case, the thickness of the sintering frame is 2mm.

2.4 The position and number of connecting rods between the long bridge and the sintering frame must be evenly distributed, not too dense and as far away from the thinner position as possible to avoid deformation or sintering cracking. As shown below.

2.5 The connecting rod between the long bridge and the sintering frame should not be inclined up and down and should be on the same level as possible.

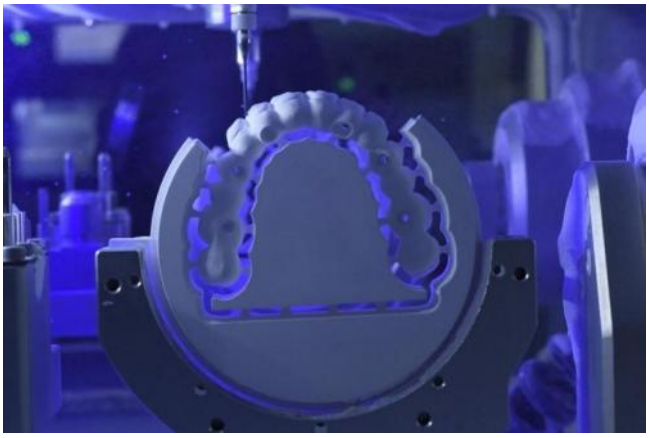
2.6 The position between the gums and the teeth can be set with a 90-degree processing strategy to ensure the morphological effect.



3.Milling

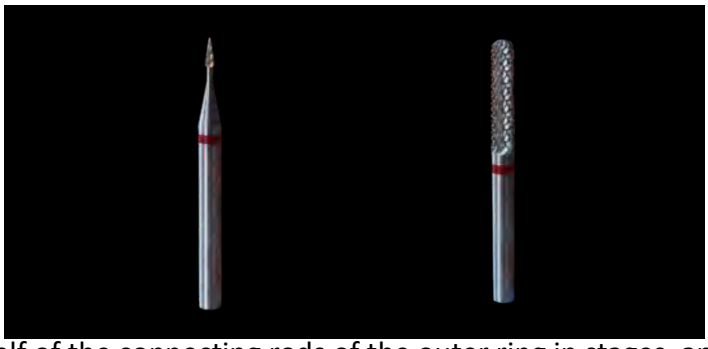
3.1 A 5-axis device is recommended.
3.2 Ensure the service life of the bur before cutting. The number of cutting bur cuts should be recorded for each cut.
3.3 Be sure to ensure the stability of the device. Regular calibration and maintenance, parts should be replaced in time if there is any problem.
3.4 Do not place the cutting machine on an unstable table or shelf. There is no shaking or abnormal noise when cutting.

3.5 During the process of installing the zirconium disc, make it evenly stressed to prevent the zirconium disc from cracking or cracking.
3.6 When cutting, pay attention to the placement direction of the zirconium disc. The direction of the arrow is the direction of the incisal end of the tooth. Do not cut wet.
3.7 The finished zirconium disc must be handled with care, and attention should be paid to the placement strength. Excessive strength will cause the long bridge restoration to break or crack.

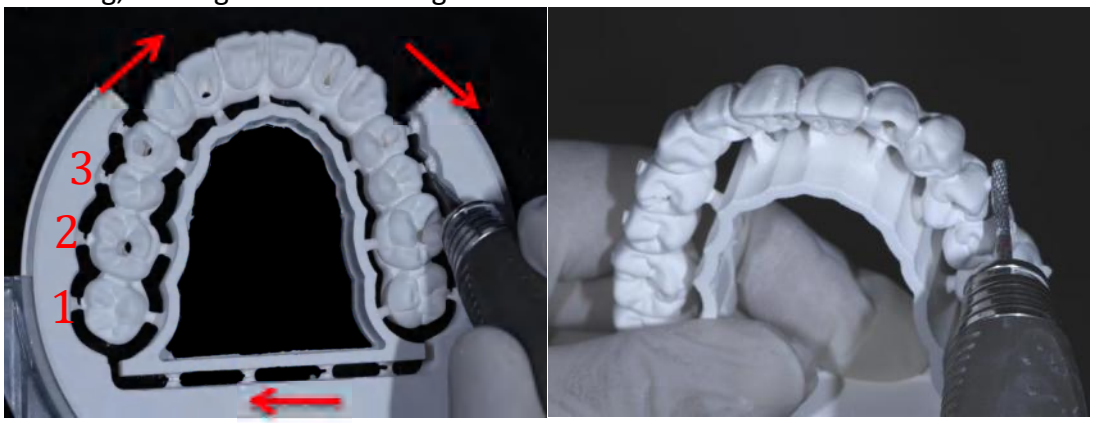


4.Separating and cleaning

4.1 The tooth separation area is laid on the tabletop with soft towel material to prevent the soft teeth from falling off and the hard tabletop colliding to cause breakage or cracking.
4.2 The grinding environment must not be polluted, including burs, tabletops and the surrounding air environment, etc., must be clean and dry, especially not contact with metal chips and liquids.
4.3 Grinding the mobile phone is stable, and the bur must not be bent to avoid vibration.
4.4 Sharp tungsten steel burs are used for unloading teeth. Remember not to press hard or shake to prevent breakage or cracking.



4.5 Grind half of the connecting rods of the outer ring in stages, and then grind the remaining connecting rods one by one to avoid the last connecting rod directly breaking, causing cracks or damage.



4.6 The powder on the surface of the restoration can be sprayed lightly with an oil-free and water-free air gun, and the force of the air gun should not be too strong.
4.7 Use a brush or an upper porcelain brush to thoroughly clean the powder on the surface of the restoration and in the crown. If the cleaning is not thorough, the powder will adhere to the surface of the restoration and in the crown after high temperature sintering, forming white spots, which will affect the aesthetics and seating of the restoration.
4.8 Please manually half-cut the connecting rods between the long bridge and the sintering frame to prevent the teeth from breaking during sintering.

5.sintering

5.1 Please use the EDIT sintering furnace for sintering. Check the condition of the sintering furnace to ensure that the sintering furnace is running stably and free of contamination.
5.2 Ensure the quantity and quality of zirconium beads, and check and replace them in time.
5.3 When the restoration is sintered, do not touch the crucible or the furnace, and be sure to cover the sintering to prevent the debris of the furnace from falling off, causing pollution such as white spots.
5.4 The reinforced belt is sintered to ensure uniform heating. It is recommended to use the "standing" method for sintering.
5.5 The furnace temperature should not be higher than 200℃. After the sintering is completed, the bridge should be taken out after the tooth has cooled to room temperature. It must not be clamped with a cold tool at temperatures above 100 degrees Celsius to prevent bursting or cracking.
5.6 Sinter according to the standard curve of half-port long bridge sintering.

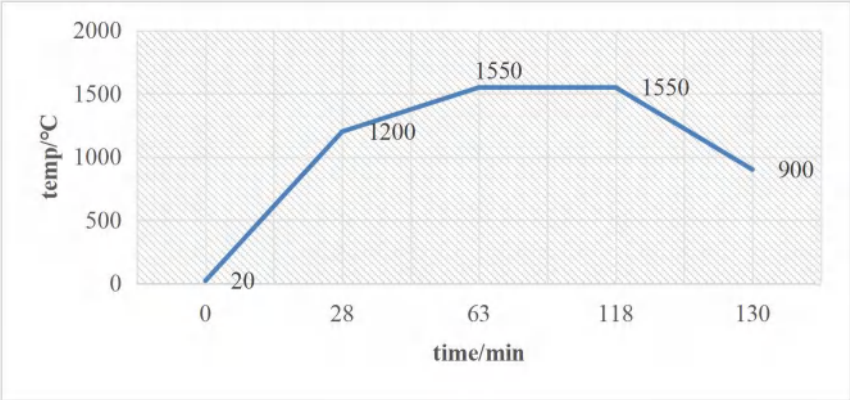
Aidite®

Sintering Program:

Below 3 units bridge（2h）

start temp	phase 1 heating rate	phase 1 Maximum temp	phase 2 heating rate	phase 2 Maximum temp	Holding time	cooling rate	cooling to
20℃	43℃/min	1200℃	10℃/min	1550℃	55min	55℃/min	900℃

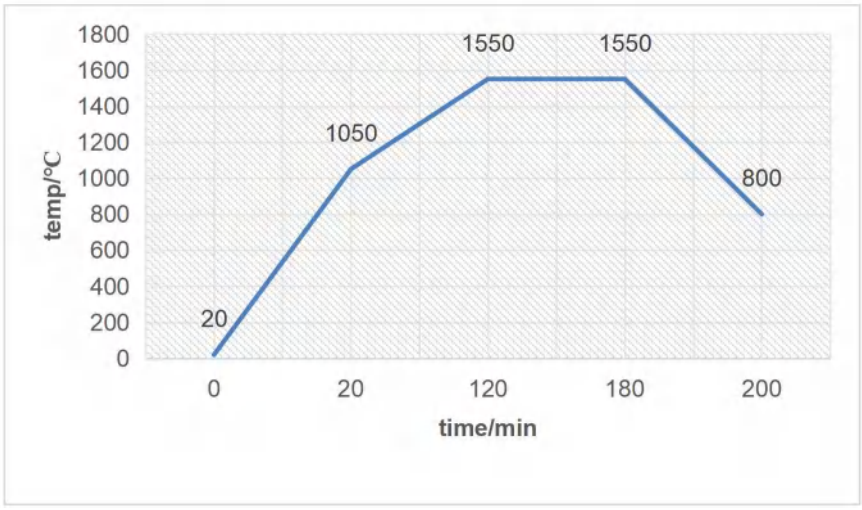
phase	temp/℃	time/min
1	**20**	**28**
2	**1200**	**35**
3	**1550**	**55**
4	**1550**	**12**
5	**900**	**-121**



Below 6 units bridge（3.4h）

start temp	phase 1 heating rate	phase 1 Maximum temp	phase 2 heating rate	phase 2 Maximum temp	Holding time	cooling rate	cooling to
20℃	51.5℃/min	1050℃	5℃/min	1550℃	60min	37.5℃/min	800℃

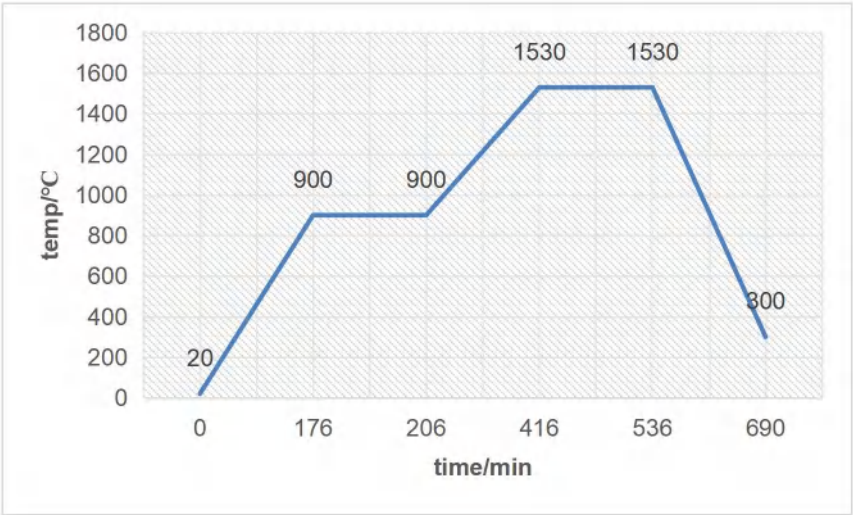
phase	temp/℃	time/min
1	**20**	**20**
2	**1050**	**100**
3	**1550**	**60**
4	**1550**	**20**
5	**800**	**-121**



Above 7 units bridge（11.5h）

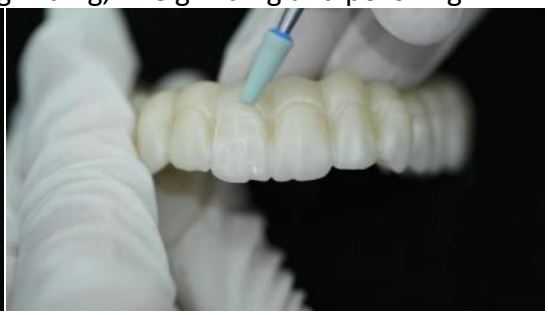
start temp	phase 1 heating rate	phase 1 Maximum temp	Holding time	phase 2 heating rate	phase 2 Maximum temp	Holding time	cooling rate	cooling to
20℃	5℃/min	900℃	30min	3℃/min	1530℃	120min	8℃/min	300℃

phase	temp/℃	time/min
1	20	176
2	900	30
3	900	210
4	1530	120
5	1530	154
6	300	-121



6.Grinding

6.1 The Aidite professional zirconia special grinding bur must be used. The surface grinding bur uses the sequence of rough grinding, fine grinding and polishing.




6.2 Press lightly and slowly during the grinding process to avoid local overheating or stress concentration. The recommended speed for rough grinding and fine grinding is 20000-35000r/min.

6.3 When grinding the neck edge, use the fine grinding bur in the special grinding set of EDITE, and it is forbidden to use the rough grinding bur to polish the neck edge. Finally, use a rough throw bur to polish the neck edge and the entire surface. The coarse throwing speed is 10000-16000r/min.

6.4 Use intermittent grinding for grinding to avoid breaking or cracking due to excessive grinding time at the same part.

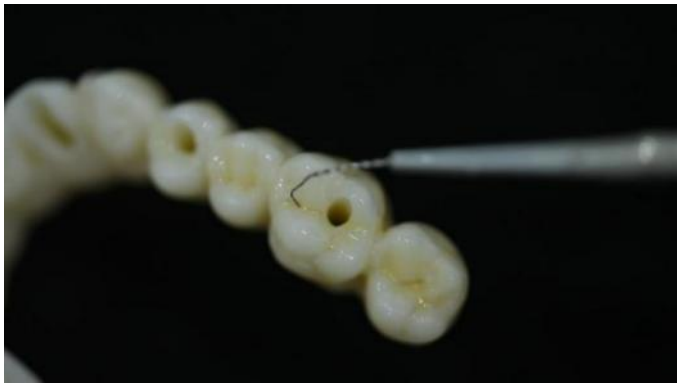
6.5 Use ultra-thin gold-steel sand to incision between teeth, be careful not to "cut" the gap, and dig from the gap to the surface of the restoration, so that the side of the sand sheet is in contact with the abduction gap. Once polished for 1 second, it will leave instantly to prevent overheating from breaking or cracking.

7.Staining and Glazing

7.1 Use external dyeing pastes such as Aidite stain and glaze kit to achieve fast staining and shipment.

Step 1: The crown part is painted with transparent glaze as a whole.

Step 2: The occlusal surface is colored with terracotta and brown.



Step 3: The cervical is painted with the main colors such as terracotta and A shade.

Step 4: Use blue No. 2 to create transparency on incisal 1/3.

7.2 After finishing the enamel staining of the crown section, the first firing takes

place.
7.3 Use Aidite Gingival Paste to make the color of the gum part. The sintering curve is the same as above.

7.4 When the external dyeing is completed, the temperature of the furnace should be lower than 300 ℃, so as to avoid cracks and fractures caused by sudden cooling and sudden heating.